PERMIT TO CONSTRUCT

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

Permit Number: 2012-004

Project Number: 2012-07-019

Installation Number: 091-0086

Parent Company: Coastal Energy Corporation

Parent Company Address: P.O. Box 218, Willow Springs, MO 65793

Installation Name: Coastal Energy Corporation

Installation Address: 1 Coastal Dr., Willow Springs, MO 65793

Location Information: Howell County, S32, T27N, R9W

Application for Authority to Construct was made for:
The installation of fuel and asphalt emulsion storage and distribution operations. This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060 Construction Permits Required.

☐ Standard Conditions (on reverse) are applicable to this permit.

☒ Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

EFFECTIVE DATE: OCT 3 2012

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES
STANDARD CONDITIONS:

Permission to construct may be revoked if the permittee fails to begin construction or modification within two years from the effective date of this permit. The permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

The permittee will be in violation of 10 CSR 10-6.060 if the permittee fails to adhere to the specifications and conditions listed in the application, this permit, and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans, and specifications.

The permittee shall notify the Missouri Department of Natural Resources’ Air Pollution Control Program of the anticipated date of startup of these air contaminant sources. The information shall be made available within 30 days of actual startup. Also, the permittee shall notify the Department of Natural Resources’ Southeast Regional Office within 15 days after the actual startup of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources’ personnel upon request.

The permittee may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If the permittee chooses to appeal, the permittee must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If the permittee chooses not to appeal, this certificate, the project review, the application, and associated correspondence constitutes the permit to construct. The permit allows the permittee to construct and operate the air contaminant sources, but in no way relieves the permittee of the obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources, and other applicable federal, state, and local laws and ordinances.

The Air Pollution Control Program invites questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060(12)(A)10 “Conditions required by permitting authority.”

Coastal Energy Corporation
Howell County, S32, T27N, R9W

1. EP-01 Boiler and EP-02 Asphalt Oil Heater
   A. This equipment shall only combust pipeline grade natural gas.
      1) Exception: Periodic testing of fuel oil #2 is allowed. Periodic testing of fuel oil #2 shall not exceed a combined total of 48 hours during any calendar year per the definition of *gas-fired boiler* in §63.11327. The permittee shall demonstrate compliance using Attachment A.
      2) In the event of a period of gas curtailment or gas supply emergency, the permittee may request a written waiver from the Missouri Air Pollution Control Program to allow for fuel oil #2 combustion beyond the 48 hours of periodic testing.
      3) The permittee shall retain fuel purchase receipts indicating the sulfur content of the fuel oil #2 combusted.

2. EP-12A Paved Haul Road
   A. The permittee shall pave EP-12A Haul Road with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement shall be applied in accordance with industry standards for such pavement so as to achieve “Control of Fugitive Emissions” while the plant is operating.
   B. Maintenance and/or repair of the road surface shall be conducted as necessary according to ASTM standards to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from the paved haul road while the plant is operating. The permittee shall document which ASTM standards the installation is complying with.
   C. The permittee shall periodically water, wash, and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from the paved haul road while the plant is operating.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

3. EP-12B Unpaved Haul Road
   A. The permittee shall control dust from EP-12B Unpaved Haul Road using one of the following methods:
      1) Usage of Chemical Dust Suppressants –
         a) The permittee shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to the unpaved haul road. The suppressant shall be applied in accordance with the manufacturer’s suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from the unpaved haul road while the plant is operating.
         b) The permittee shall retain the manufacturer’s specifications for the chemical dust suppressant from which the application rate amount and frequency was taken.
         c) The permittee shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the unpaved haul road. The permittee shall retain these records with the plant for not less than five years, and the permittee shall make these records available to Department of Natural Resources’ personnel upon request.
      2) Usage of Documented Watering –
         a) The permittee shall control the fugitive emissions from the unpaved haul road at the installation by consistently and correctly using the application of a water spray. Documented watering shall be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved surface area of the haul road as necessary to achieve control of fugitive emissions from the unpaved haul road while the plant is operating. For example, the permittee shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
         b) The permittee shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on days the plant...
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

- is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)

  c) Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from the unpaved haul road while the plant is operating is sufficient reason to suspend water spray applications on the date of the meteorological precipitation occurrence.

  d) Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The permittee shall record a brief description of such events in the same log as the documented watering.

  e) The permittee shall retain these records with the plant for not less than five years, and the permittee shall make these records available to Department of Natural Resources' personnel upon request.

4. EP-13B Parts Cleaning
The permittee shall keep cleaning solutions in sealed containers whenever the materials are not in use. The permittee shall provide and maintain suitable, easily read, and permanent markings on each cleaning solution container.

5. EP-14 Aggregate Storage Pile
A. The permittee shall control dust from EP-14 Aggregate Storage Pile using one of the following methods:

   1) Pavement of Storage Pile Vehicle Activity Surfaces –
      a) The permittee may pave all or any portion of the vehicle activity areas around the storage pile with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement shall be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.

      b) Maintenance and/or repair of the road surface shall be conducted as necessary according to ASTM standards to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

areas while the plant is operating. The permittee shall document which ASTM standards the installation is complying with.

c) The permittee shall periodically water, wash, and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage pile as necessary to achieve control of fugitive emissions from the storage pile while the plant is operating.

2) Usage of Chemical Dust Suppressants –
a) The permittee shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage pile. The suppressant shall be applied in accordance with the manufacturer’s suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from the storage pile while the plant is operating.
b) The permittee shall retain the manufacturer’s specifications for the chemical dust suppressant from which the application rate amount and frequency was taken.
c) The permittee shall record the time, date, and the amount of material applied for each application of the chemical dust suppressant agent on the vehicle activity areas around the storage pile. The permittee shall retain these records with the plant for not less than five years, and the permittee shall make these records available to Department of Natural Resource’s personnel upon request.

3) Usage of Documented Watering –
a) The permittee shall control the fugitive emissions from all the vehicle activity areas around the storage pile at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved surface area of vehicle activity areas around the storage pile as necessary to achieve control of fugitive emissions from the storage while the plant is operating. (Refer to example for documented watering of haul roads.)
b) The permittee shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)

c) Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from the storage pile while the plant is operating is sufficient reason to suspend water spray applications on the date of the meteorological precipitation occurrence.

d) Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the vehicular area. The permittee shall record a brief description of such events in the same log as the documented watering.

e) The permittee shall record the date and the amount of water applied for each application on the above areas. The permittee shall retain these records with the plant for not less than five years, and the permittee shall make these records available to Department of Natural Resources’ personnel upon request.

6. Record Keeping and Reporting Requirements
The permittee shall retain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources’ personnel upon request. These records shall include MSDS for each chemical/material used at the installation.
REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (6) REVIEW
Project Number: 2012-07-019
Installation ID Number: 091-0086
Permit Number:

Coastal Energy Corporation
1 Coastal Drive
Willow Springs, MO 65793

Parent Company:
Coastal Energy Corporation
P.O. Box 218
Willow Springs, MO 65793

Howell County, S32, T27N, R9W

REVIEW SUMMARY

• The permittee has applied for authority to install a fuel and asphalt emulsion storage and distribution facility.

• HAP emissions are expected from the proposed equipment. Fuel combustion at the installation will emit Hexane (110-54-3), Benzene (71-43-2), Naphthalene (91-20-3), and Formaldehyde (50-00-0).


• 40 CFR Part 63, Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources is not applicable to the installation per §63.11195(e) provided EP-01 Boiler continues to meet the definition of gas-fired boiler within §63.11237: “Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.”

• No air pollution control equipment is being used in association with the new equipment.

• This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060 Construction Permits Required. Potential emissions of PM and VOC are above the de minimis levels.
- 9 -

- This installation is located in Howell County, an attainment area for all criteria pollutants.

- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

- Ambient air quality modeling was not performed for this review. No model is currently available which can accurately predict ambient ozone concentrations caused by this installation's VOC emissions. Potential PM emissions are above de minimis levels; however, there are no modeling requirements for PM at this time.

- Emissions testing are not required for the equipment.

- A Basic Operating Permit is required for this installation within 30 days of equipment startup.

- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Coastal Energy Corporation is proposing to construct a new fuel and asphalt products storage and distribution operation in Willow Springs, Missouri. The installation will sell denatured ethanol, diesel, biodiesel, residual oil, asphalt oil, asphalts blended with vulcanizer dispersion (UP1935) and styrene/butadiene copolymer latex (UP7289), cutback asphalt, and cold patch asphalt. The only products being created onsite are the cold patch asphalt and the asphalts blended with UP1935 and UP7289. This is a new installation; therefore, no permits have been issued to the permittee by the Air Pollution Control Program. This installation will require a Basic Operating Permit within 30 days of equipment startup.

PROJECT DESCRIPTION

The permittee has applied for authority to construct a new fuel and asphalt products storage and distribution operation. The installation will receive denatured ethanol and asphalt oil from railcars while cutback asphalt, diesel, biodiesel, residual oil, polymer, and aggregate will be delivered by truck. An Asphalt Oil Heater (EP-02) and steam from a Boiler (EP-01) will be employed to heat the asphalt oil until the viscosity of the asphalt oil is reduced enough to allow the asphalt oil to be transferred from the railcar to a storage tank. Raw materials will be stored in a number of storage tanks:
<table>
<thead>
<tr>
<th>Tank No.</th>
<th>Storage Capacity (gallons)</th>
<th>Contents</th>
<th>Maximum Annual Usage (gallons)</th>
<th>Temperature (°F)</th>
<th>Emission Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>30,000</td>
<td>Denatured Ethanol</td>
<td>252,000</td>
<td></td>
<td>EP-07</td>
<td>Ethanol Storage Tanks</td>
</tr>
<tr>
<td>A2</td>
<td>30,000</td>
<td></td>
<td>252,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>30,000</td>
<td></td>
<td>252,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>30,000</td>
<td></td>
<td>252,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>30,000</td>
<td></td>
<td>252,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td>30,000</td>
<td></td>
<td>252,000</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A7</td>
<td>30,000</td>
<td></td>
<td>252,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A8</td>
<td>30,000</td>
<td></td>
<td>252,000</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>A9</td>
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<tr>
<td>A10</td>
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<td></td>
<td>252,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>30,000</td>
<td>MC-250 Cutback Asphalt</td>
<td>500,000</td>
<td>250</td>
<td>EP-08</td>
<td>Cutback Asphalt Storage Tanks</td>
</tr>
<tr>
<td>6</td>
<td>30,000</td>
<td>MC-800 Cutback Asphalt</td>
<td>500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>30,000</td>
<td>Asphalt Oil</td>
<td>500,000</td>
<td>250</td>
<td>EP-09</td>
<td>Asphalt Oil Storage Tanks</td>
</tr>
<tr>
<td>3</td>
<td>30,000</td>
<td></td>
<td>500,000</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5</td>
<td>30,000</td>
<td></td>
<td>500,000</td>
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<td></td>
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<tr>
<td>7</td>
<td>210,000</td>
<td></td>
<td>600,000</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>420,000</td>
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<td>2,500,000</td>
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<td>9</td>
<td>420,000</td>
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<td>10</td>
<td>420,000</td>
<td></td>
<td>2,500,000</td>
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<td></td>
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</tr>
<tr>
<td>11</td>
<td>420,000</td>
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<td>2,500,000</td>
<td></td>
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<td>12</td>
<td>30,000</td>
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<td>500,000</td>
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<td></td>
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<tr>
<td>13</td>
<td>30,000</td>
<td></td>
<td>500,000</td>
<td></td>
<td></td>
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<tr>
<td>14</td>
<td>30,000</td>
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<td>500,000</td>
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<tr>
<td>15</td>
<td>30,000</td>
<td></td>
<td>500,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>30,000</td>
<td>UP1935</td>
<td>59,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>30,000</td>
<td>UP7289</td>
<td>59,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>30,000</td>
<td>Asphalt Oil</td>
<td>500,000</td>
<td>250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>30,000</td>
<td></td>
<td>500,000</td>
<td></td>
<td></td>
<td></td>
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<td>21</td>
<td>30,000</td>
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<td>500,000</td>
<td></td>
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</tr>
<tr>
<td>F1</td>
<td>20,000</td>
<td>Fusel Biodiesel</td>
<td>8,500</td>
<td></td>
<td>EP-10</td>
<td>Diesel/Biodiesel Storage Tanks</td>
</tr>
<tr>
<td>F2</td>
<td>20,000</td>
<td></td>
<td>8,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>12,000</td>
<td>Diesel</td>
<td>16,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>30,000</td>
<td>Fuel Oil #6</td>
<td>150,000</td>
<td>250</td>
<td>EP-11</td>
<td>Residual Oil Storage Tank</td>
</tr>
</tbody>
</table>

Both EP-01 and EP-02 are natural gas fired. EP-01 is rated at 25.106 MMBtu/hr while EP-02 is rated at 10.95 MMBtu/hr.

Asphalt blends will be created at the installation by blending asphalt oil with the desired amount of UP1935 or UP7289. Cold patch asphalt will be created by introducing asphalt oil and cold aggregate into an Asphalt Pugmill (EP-06). The aggregate is neither heated nor dried and; therefore, does not constitute hot mix asphalt.
Aggregate will be stored in a 0.02 acre Aggregate Storage Pile (EP-14). The aggregate at the facility is only used to produce cold patch asphalt and is not held for distribution; therefore, the maximum hourly throughput of Aggregate Storage Pile (EP-14) is bottlenecked by the Asphalt Pugmill (EP-06) to 7.229 tons per hour.

Product leaves the installation by truck using a haul road. The haul road is partially paved and has been labeled Haul Road – Paved (EP-12A) and Haul Road – Unpaved (EP-12B). The product is loaded into the trucks by the following loading racks:

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
<th>MHDR (gallons/hr)</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-03</td>
<td>Asphalt Loading Rack</td>
<td>10,000</td>
<td>Asphalt Oil, Cutback Asphalt, Cold Patch Asphalt, Asphalt blended with UP1935 or UP7289</td>
</tr>
<tr>
<td>EP-04</td>
<td>Ethanol Loading Rack</td>
<td>15,000</td>
<td>Denatured Ethanol</td>
</tr>
<tr>
<td>EP-05</td>
<td>Fuel Oil Loading Rack</td>
<td>10,000</td>
<td>Diesel, Biodiesel, Residual Oil</td>
</tr>
</tbody>
</table>

The installation also operates a Parts Washer (EP-13A) and performs some manual Parts Cleaning (EP-13B).

EMISSIONS/CONTROLS EVALUATION


Potential emissions from the Asphalt Loading Rack (EP-03), Ethanol Loading Rack (EP-04), and Fuel Oil Loading Rack (EP-05) were calculated using Equation 1 from AP-42’s Section 5.2.2.1.1 “Loading Losses” (July 2008) and the following variables:

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Saturation Factor, S</th>
<th>True Vapor Pressure, P (psia)</th>
<th>Molecular Weight, M (lb/lb-mole)</th>
<th>Temperature, T (°F)</th>
<th>% HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-03</td>
<td>1.45 Splash Loading</td>
<td>0.0052</td>
<td>105</td>
<td>300</td>
<td>0.08% Styrene</td>
</tr>
<tr>
<td>EP-04</td>
<td>0.6 Submerged Loading</td>
<td>0.84888</td>
<td>47</td>
<td>68</td>
<td>0.25% Benzene</td>
</tr>
<tr>
<td>EP-05</td>
<td>1.45 Splash Loading</td>
<td>0.016</td>
<td>130</td>
<td>250</td>
<td>1% Naphthalene</td>
</tr>
</tbody>
</table>

Potential emissions from the Asphalt Pugmill (EP-06) were calculated using emission factors taken from EPA’s *Factor Information Retrieval System* (WebFIRE) for Process SCC 30503003.
Potential emissions from the storage tanks were calculated using emission factors taken from WebFIRE for the following Process SCCs and the % HAP obtained from the MSDS provided with the application:

### Table 4: Tank Emission Factors

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
<th>Tank(s) No.</th>
<th>Breathing Loss</th>
<th>Working Loss</th>
<th>% HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-07</td>
<td>Ethanol Storage Tanks</td>
<td>A1, A2, A3, A4, A5, A6, A7, A8, A9, &amp; A10</td>
<td>40700809</td>
<td>40700810</td>
<td>0.25% Benzene</td>
</tr>
<tr>
<td>EP-08</td>
<td>Cutback Asphalt Storage Tanks</td>
<td>4 &amp; 6</td>
<td>40301016(^1)</td>
<td>40301018(^1)</td>
<td>N/A</td>
</tr>
<tr>
<td>EP-09</td>
<td>Asphalt Oil Storage Tanks</td>
<td>2, 3, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, &amp; 21</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>40703613(^2)</td>
<td>40703614(^2)</td>
<td>0.08% Styrene</td>
</tr>
<tr>
<td>EP-10</td>
<td>Diesel/Biodiesel Storage Tanks</td>
<td>F1 &amp; F2</td>
<td>40301019</td>
<td>40301021</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1</td>
<td>40301019</td>
<td>40301021</td>
<td>1% Naphthalene</td>
</tr>
<tr>
<td>EP-11</td>
<td>Residual Oil Storage Tank</td>
<td>1</td>
<td>40301019(^3)</td>
<td>40301021(^3)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

\(^1\)This emission factor is for 100% kerosene. The MSDS indicated that MC-250 and MC-800 contain 33% and 25% kerosene, respectively; therefore, only 33% or 25%, respectively, of the kerosene emission factor was used to calculated emissions.

\(^2\)This emission factor is for 100% styrene. The MSDS indicated that UP7289 contains 0.08% styrene; therefore, only 0.08% of the styrene emission factor was used to calculate emissions.

\(^3\)This emission factor is for 100% diesel. The MSDS indicated that the residual oil contains 5% diesel; therefore, only 5% of the diesel emission factor was used to calculate emissions.

Potential emissions from Haul Road – Paved (EP-12A) and Haul Road – Unpaved (EP-12B) were calculated using emission factors obtained AP-42’s Sections 13.2.1 “Paved Haul Roads” (January 2011) and 13.2.2 “Unpaved Haul Roads” (November 2006), respectively. Haul Road – Unpaved (EP-12B) was given a 90 percent control efficiency for PM and PM\(_{10}\) and a 40 percent control efficiency for PM\(_{2.5}\) for the application of the BMPs required by Special Condition 3.

Potential emissions from Parts Washer (EP-13A) and manual Parts Cleaning (EP-13B) were calculated using a mass balance, with a maximum of 0.019 gallons per hour of solvent containing 100% VOC with a density of 6.7 lb/gal.

The potential loadin/loadout emissions from Aggregate Storage Pile (EP-14) were calculated using Equation 1 from AP-42’s Section 13.2.4 “Aggregate Handling and Storage Piles” (November 2006) while potential activity and wind erosion emissions were calculated using Missouri Emissions Inventory Questionnaire Form 2.8 “Storage Pile Worksheet” (December 2009).

The following table provides an emissions summary for this project. As a new installation, the facility has no existing potential emissions or existing actual emissions. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year), unless otherwise noted above.
Table 5: Emissions Summary (tons per year)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Regulatory De Minimis Levels</th>
<th>Existing Potential Emissions</th>
<th>Existing Actual Emissions</th>
<th>Unconditioned Potential Installation Emissions</th>
<th>Conditioned Potential Installation Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>40.78</td>
<td>27.58</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>15.0</td>
<td>N/A</td>
<td>N/A</td>
<td>18.51</td>
<td>13.36</td>
</tr>
<tr>
<td>PM₂₅</td>
<td>10.0</td>
<td>N/A</td>
<td>N/A</td>
<td>4.04</td>
<td>3.24</td>
</tr>
<tr>
<td>SOₓ</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>0.24</td>
<td>0.09</td>
</tr>
<tr>
<td>NOₓ</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>22.56</td>
<td>15.08</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>42.80</td>
<td>42.80</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/A</td>
<td>12.63</td>
<td>12.63</td>
</tr>
<tr>
<td>GHG₁</td>
<td>100,000</td>
<td>N/A</td>
<td>N/A</td>
<td>25,467.83</td>
<td>18,130.95</td>
</tr>
<tr>
<td>HAPs</td>
<td>25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>0.40</td>
<td>0.40</td>
</tr>
<tr>
<td>Hexane (110-54-3)</td>
<td>10.0²</td>
<td>N/A</td>
<td>N/A</td>
<td>0.27</td>
<td>0.27</td>
</tr>
<tr>
<td>Benzene (71-43-2)</td>
<td>2.0²</td>
<td>N/A</td>
<td>N/A</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>Naphthalene (91-20-3)</td>
<td>10.0²</td>
<td>N/A</td>
<td>N/A</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Formaldehyde (50-00-0)</td>
<td>2.0²</td>
<td>N/A</td>
<td>N/A</td>
<td>0.01</td>
<td>0.01</td>
</tr>
</tbody>
</table>

N/A = Not Applicable

1. The GHG values within this table are expressed as CO₂e.
2. This value represents the SMAL for the HAP. The de minimis level for the HAP is 10.0 tons per year.

Uncontrolled potential installation emissions of Hexane (110-54-3), Benzene (71-43-2), Naphthalene (91-20-3), and Formaldehyde (50-00-0) are below the SMAL; therefore, modeling was not required.

Conditioned potential installation emissions include BMP control efficiencies of 90 percent for PM and PM₁₀ and 40 percent for PM₂₅ for Unpaved Haul Road (EP-12B) as required by Special Condition 3. Conditioned potential installation emissions also include the 48 hour fuel oil restriction of Special Condition 1.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060 Construction Permits Required. Potential emissions of PM and VOC are above de minimis levels, but are below the major source levels.

APPLICABLE REQUIREMENTS

The permittee shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.
GENERAL REQUIREMENTS

- 10 CSR 10-6.065 Operating Permits
- 10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information
- 10 CSR 10-6.165 Restriction of Emission of Odors
- 10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin
- 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

SPECIFIC REQUIREMENTS

- 10 CSR 10-6.070 New Source Performance Regulations
  - 40 CFR Part 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes
- 10 CSR 10-6.405 Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060 Construction Permits Required, I recommend this permit be granted with special conditions.

________________________________   _________________________________
Alana L. Rugen, EIT  Date
Environmental Engineer II
PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated July 6, 2012 received July 9, 2012, designating Coastal Energy Corporation as the owner and operator of the installation.

Attachment A  
Fuel Oil #2 Combustion Compliance Worksheet

Coastal Energy Corporation  
Howell County, S32, T27N, R9W  
Project Number: 2012-07-019  
Installation ID Number: 091-0086  
Permit Number: 

This sheet covers the _________ calendar year.

<table>
<thead>
<tr>
<th>Date (Month/Day/Year)</th>
<th>Hours of Operation¹</th>
<th>Reason for Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Total²: 

¹Hours of Operation shall be rounded up to the nearest quarter hour, i.e. 6 minutes = 0.25 hours.
²Total = The sum of each individual Hours of Operation. A total of less than 48 hours demonstrates compliance.
APPENDIX A

Abbreviations and Acronyms

% .......... percent
°F .......... degrees Fahrenheit
acfm ...... actual cubic feet per minute
BACT ..... Best Available Control Technology
BMPs ..... Best Management Practices
Btu......... British thermal unit
CAM ...... Compliance Assurance Monitoring
CAS ........ Chemical Abstracts Service
CEMS ..... Continuous Emission Monitor System
CFR ........ Code of Federal Regulations
CO .......... carbon monoxide
CO₂ ....... carbon dioxide
CO₂e....... carbon dioxide equivalent
COMS ..... Continuous Opacity Monitoring System
CSR......... Code of State Regulations
dscf ....... dry standard cubic feet
EIQ ........ Emission Inventory Questionnaire
EP .......... Emission Point
EPA ....... Environmental Protection Agency
EU ........ Emission Unit
fps .......... feet per second
ft .......... feet
GACT ..... Generally Available Control Technology
GHG ...... Greenhouse Gas
gpm ...... gallons per minute
gr .......... grains
GWP ...... Global Warming Potential
HAP ...... Hazardous Air Pollutant
hr .......... hour
hp .......... horsepower
lb .......... pound
lbs/hr ...... pounds per hour
MACT ..... Maximum Achievable Control Technology
µg/m³ ...... micrograms per cubic meter
m/s ........ meters per second
Mgal ...... 1,000 gallons
MW .......... megawatt
MHDR...... maximum hourly design rate
MMBtu ..... Million British thermal units
MMCF ...... million cubic feet
MSDS ..... Material Safety Data Sheets
NAAQS .... National Ambient Air Quality Standards
NESHAPs .... National Emissions Standards for Hazardous Air Pollutants
NOₓ ...... nitrogen oxides
NSPS ...... New Source Performance Standards
NSR ....... New Source Review
PM .......... particulate matter
PM₂.₅ ...... particulate matter less than 2.5 microns in aerodynamic diameter
PM₁₀ ...... particulate matter less than 10 microns in aerodynamic diameter
ppm ...... parts per million
PSD ....... Prevention of Significant Deterioration
PTE ........ potential to emit
RACT ...... Reasonable Available Control Technology
RAL ...... Risk Assessment Level
SCC ....... Source Classification Code
scfm ...... standard cubic feet per minute
SIC ....... Standard Industrial Classification
SIP ........ State Implementation Plan
SMAL ..... Screening Model Action Levels
SOₓ ...... sulfur oxides
SO₂ ...... sulfur dioxide
tpy ........ tons per hour
tpy ........ tons per year
VMT ....... vehicle miles traveled
VOC ...... Volatile Organic Compound
Mr. David Montgomery  
President  
Coastal Energy Corporation  
P.O. Box 218  
Willow Springs, MO 65793  

RE: New Source Review Permit - Project Number: 2012-07-019

Dear Mr. Montgomery:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your New Source Review Permit application, and submittal of a Basic Operating Permit application is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Alana L. Rugen, at the Department of Natural Resources’ Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp  
New Source Review Unit Chief  

SH:arl  

Enclosures  
c: Southeast Regional Office  
PAMS File: 2012-07-019  

Permit Number: