

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

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: **102012-004** 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.

OCT - 5 2012

EFFECTIVE DATE

Handwritten signature of Kyla L Moore in cursive script.  
\_\_\_\_\_  
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.

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## 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.

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### 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

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#### 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

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### 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

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### 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

Complete: 7/26/2012

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 60, Subpart Dc – *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* is applicable to EP-01 Boiler.
- 40 CFR Part 60, Subpart UU – *Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture* is applicable to EP-09 Asphalt Oil Storage Tanks.
- 40 CFR Part 63, Subpart JJJJJJ – *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.

- 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 1: Installation Storage Tanks**

Tank No.	Storage Capacity (gallons)	Contents	Maximum Annual Usage (gallons)	Temperature (°F)	Emission Unit	Description				
A1	30,000	Denatured Ethanol	252,000	Ambient	EP-07	Ethanol Storage Tanks				
A2	30,000		252,000							
A3	30,000		252,000							
A4	30,000		252,000							
A5	30,000		252,000							
A6	30,000		252,000							
A7	30,000		252,000							
A8	30,000		252,000							
A9	30,000		252,000							
A10	30,000		252,000							
4	30,000	MC-250 Cutback Asphalt	500,000	250	EP-08	Cutback Asphalt Storage Tanks				
6	30,000	MC-800 Cutback Asphalt	500,000							
2	30,000	Asphalt Oil	500,000	250	EP-09	Asphalt Oil Storage Tanks				
3	30,000		500,000							
5	30,000		500,000							
7	210,000		600,000							
8	420,000		2,500,000							
9	420,000		2,500,000							
10	420,000		2,500,000							
11	420,000		2,500,000							
12	30,000		500,000							
13	30,000		500,000							
14	30,000		500,000							
15	30,000		500,000							
16	30,000		UP1935				59,000	Ambient		
17	30,000		UP7289				59,000			
18	30,000	Asphalt Oil	500,000	250						
19	30,000		500,000							
20	30,000		500,000							
21	30,000		500,000							
F1	20,000	Fusel	8,500	Ambient	EP-10	Diesel/Biodiesel Storage Tanks				
F2	20,000	Biodiesel	8,500							
B1	12,000	Diesel	16,000							
1	30,000	Fuel Oil #6	150,000	250	EP-11	Residual Oil Storage Tank				

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 2: Installation Loading Racks**

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

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

## EMISSIONS/CONTROLS EVALUATION

Potential emissions from Boiler 1 (EP-01) and Asphalt Oil Heater (EP-02) were calculated from fuel oil #2 and natural gas emissions factors taken from EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Sections 1.3 “Fuel Oil Combustion” (September 1999) for Process SCC 10200502 and 1.4 “Natural Gas Combustion” (July 1998) for Process SCC 10200602, respectively, and from 40 CFR Part 98 – *Mandatory Greenhouse Gas Reporting*. The worst-case fuel for each pollutant was used for the potential emissions.

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 3: Loading Loss Variables**

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

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**

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

<sup>1</sup>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 calculate emissions.

<sup>2</sup>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.

<sup>3</sup>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<sub>10</sub> and a 40 percent control efficiency for PM<sub>2.5</sub> 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)**

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions	Unconditioned Potential Installation Emissions	Conditioned Potential Installation Emissions
PM	25.0	N/A	N/A	40.78	27.58
PM <sub>10</sub>	15.0	N/A	N/A	18.51	13.36
PM <sub>2.5</sub>	10.0	N/A	N/A	4.04	3.24
SO <sub>x</sub>	40.0	N/A	N/A	0.24	0.09
NO <sub>x</sub>	40.0	N/A	N/A	22.56	15.08
VOC	40.0	N/A	N/A	42.80	42.80
CO	100.0	N/A	N/A	12.63	12.63
GHG <sup>1</sup>	100,000	N/A	N/A	25,467.83	18,130.95
HAPs	25.0	N/A	N/A	0.40	0.40
Hexane (110-54-3)	10.0 <sup>2</sup>	N/A	N/A	0.27	0.27
Benzene (71-43-2)	2.0 <sup>2</sup>	N/A	N/A	0.10	0.10
Naphthalene (91-20-3)	10.0 <sup>2</sup>	N/A	N/A	0.02	0.02
Formaldehyde (50-00-0)	2.0 <sup>2</sup>	N/A	N/A	0.01	0.01

N/A = Not Applicable

<sup>1</sup>The GHG values within this table are expressed as CO<sub>2</sub>e.

<sup>2</sup>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 PM<sub>10</sub> and 40 percent for PM<sub>2.5</sub> 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*
  - 40 CFR Part 60, Subpart UU – *Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture*
- 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.

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Alana L. Rugen, EIT  
Environmental Engineer II

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Date

## 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.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

**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.

Date (Month/Day/Year)	Hours of Operation <sup>1</sup>	Reason for Operation
<b>Total<sup>2</sup>:</b>		

<sup>1</sup>Hours of Operation shall be rounded up to the nearest quarter hour, i.e. 6 minutes = 0.25 hours.

<sup>2</sup>Total = The sum of each individual Hours of Operation. A total of less than 48 hours demonstrates compliance.

## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> .....	percent	<b>m/s</b> .....	meters per second
<b>°F</b> .....	degrees Fahrenheit	<b>Mgal</b> .....	1,000 gallons
<b>acfm</b> .....	actual cubic feet per minute	<b>MW</b> .....	megawatt
<b>BACT</b> .....	Best Available Control Technology	<b>MHDR</b> .....	maximum hourly design rate
<b>BMPs</b> .....	Best Management Practices	<b>MMBtu</b> ....	Million British thermal units
<b>Btu</b> .....	British thermal unit	<b>MMCF</b> .....	million cubic feet
<b>CAM</b> .....	Compliance Assurance Monitoring	<b>MSDS</b> .....	Material Safety Data Sheets
<b>CAS</b> .....	Chemical Abstracts Service	<b>NAAQS</b> ...	National Ambient Air Quality Standards
<b>CEMS</b> .....	Continuous Emission Monitor System	<b>NESHAPs</b>	
<b>CFR</b> .....	Code of Federal Regulations	.....	National Emissions Standards for Hazardous Air Pollutants
<b>CO</b> .....	carbon monoxide	<b>NO<sub>x</sub></b> .....	nitrogen oxides
<b>CO<sub>2</sub></b> .....	carbon dioxide	<b>NSPS</b> .....	New Source Performance Standards
<b>CO<sub>2e</sub></b> .....	carbon dioxide equivalent	<b>NSR</b> .....	New Source Review
<b>COMS</b> .....	Continuous Opacity Monitoring System	<b>PM</b> .....	particulate matter
<b>CSR</b> .....	Code of State Regulations	<b>PM<sub>2.5</sub></b> .....	particulate matter less than 2.5 microns in aerodynamic diameter
<b>dscf</b> .....	dry standard cubic feet	<b>PM<sub>10</sub></b> .....	particulate matter less than 10 microns in aerodynamic diameter
<b>EQ</b> .....	Emission Inventory Questionnaire	<b>ppm</b> .....	parts per million
<b>EP</b> .....	Emission Point	<b>PSD</b> .....	Prevention of Significant Deterioration
<b>EPA</b> .....	Environmental Protection Agency	<b>PTE</b> .....	potential to emit
<b>EU</b> .....	Emission Unit	<b>RACT</b> .....	Reasonable Available Control Technology
<b>fps</b> .....	feet per second	<b>RAL</b> .....	Risk Assessment Level
<b>ft</b> .....	feet	<b>SCC</b> .....	Source Classification Code
<b>GACT</b> .....	Generally Available Control Technology	<b>scfm</b> .....	standard cubic feet per minute
<b>GHG</b> .....	Greenhouse Gas	<b>SIC</b> .....	Standard Industrial Classification
<b>gpm</b> .....	gallons per minute	<b>SIP</b> .....	State Implementation Plan
<b>gr</b> .....	grains	<b>SMAL</b> .....	Screening Model Action Levels
<b>GWP</b> .....	Global Warming Potential	<b>SO<sub>x</sub></b> .....	sulfur oxides
<b>HAP</b> .....	Hazardous Air Pollutant	<b>SO<sub>2</sub></b> .....	sulfur dioxide
<b>hr</b> .....	hour	<b>tpy</b> .....	tons per hour
<b>hp</b> .....	horsepower	<b>tpy</b> .....	tons per year
<b>lb</b> .....	pound	<b>VMT</b> .....	vehicle miles traveled
<b>lbs/hr</b> .....	pounds per hour	<b>VOC</b> .....	Volatile Organic Compound
<b>MACT</b> .....	Maximum Achievable Control Technology		
<b>µg/m<sup>3</sup></b> .....	micrograms per cubic meter		

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: