



**Santa Barbara County
Air Pollution Control District**

Our Vision  Clean Air

AUG 08 2011

Mr. Gerardo Rios
USEPA – Permits Office (AIR 3)
75 Hawthorne Street
San Francisco, CA 94105

FID: 03321
Permit: P 13000
SSID: 02667

Re: Proposed Minor Permit Modifications to BreitBurn Energy Company Newlove Lease Part 70/APCD PTO 08240-R7

Dear Mr. Rios:

This letter transmits Proposed Minor Permit Modification Permit to Operate (PTO) 13000 for modifications to Part 70/APCD PTO 08240-R7. Included with the proposed permit is a copy of the application submitted by the applicant for this modification. We plan to issue this minor permit modification as final after September 23, 2011 provided your office has not objected to such issuance during this time interval.

If you have any questions, please contact Stefanie M. Boehme of my staff at (805) 961-8810.

Sincerely,

Michael Goldman, Manager
Engineering & Compliance Division

enc: Proposed PTO 13000
Application forms for Minor Modifications to BreitBurn Energy Company New Love Lease

cc: New Love Lease Project File SC
ECD Chron File
Ben Ellenberger (cover letter only)
Stefanie Boehme (cover letter only)

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Part 70 Minor Modification 13000
and
Permit to Operate 13000

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EQUIPMENT OWNER:

BreitBurn Energy Company LP

300000

EQUIPMENT OPERATOR:

BreitBurn Energy Company LP

EQUIPMENT LOCATION:

Newlove Lease

STATIONARY SOURCE/FACILITY:

BreitBurn Energy - Orcutt Hill
Newlove Lease

SSID: 02667
FID: 03321

EQUIPMENT DESCRIPTION:

The equipment subject to this permit is listed in the table at the end of this permit.

PROJECT/PROCESS DESCRIPTION:

Operation of a thermal oxidizer to combust produced gas in excess of the fuel use capacity of the IC engines and two steam generators, and to combust the flow of gas to the steam generators when the steam generators are down. The thermal oxidizer is equipped with a low-NO_x burner that meets Best Available Control Technology (BACT) standards.

CONDITIONS:

9.A Standard Administrative Conditions

Section A lists the applicable standard administrative conditions for all equipment in this permit. Conditions listed in this section are enforceable by the USEPA, the District, the State of California and the public. Where any reference contained in this section refers to any other part of this permit, that part of the permit referred to is federally enforceable. In case of a discrepancy between the wording of a condition and the applicable federal or District rule(s), the wording of the rule shall control.

A.1 Compliance with Permit Conditions:

- (a) The permittee shall comply with all permit conditions in Sections 9.A, 9.B and 9.C.
- (b) This permit does not convey property rights or exclusive privilege of any sort.
- (c) Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
- (d) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (e) A pending permit action or notification of anticipated noncompliance does not stay any permit condition.
- (f) Within a reasonable time period, the permittee shall furnish any information requested by the Control Officer, in writing, for the purpose of determining:
 - (i) compliance with the permit, or
 - (ii) whether or not cause exists to modify, revoke and reissue, or terminate a permit or for an enforcement action. [Re: 40 CFR Part 70.6, District Rules 1303.D.1]
- (g) In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible.

A.2 Emergency Provisions: The permittee shall comply with the requirements of the District, Rule 505 (Upset/Breakdown rule) and/or District Rule 1303.F, whichever is applicable to the

emergency situation. In order to maintain an affirmative defense under Rule 1303.F, the permittee shall provide the District, in writing, a “notice of emergency” within 2 days of the emergency. The “notice of emergency” shall contain the information/documentation listed in Sections (1) through (5) of Rule 1303.F. [*Re: 40 CFR 70.6, District Rule 1303.F*]

A.3 Compliance Plan:

- (a) The permittee shall comply with all federally-enforceable requirements that become applicable during the permit term, in a timely manner, as identified in the Compliance Plan.
- (b) For all applicable equipment, the permittee shall implement and comply with any specific compliance plan required under any federally-enforceable rules or standards. [*Re: District Rule 1302.D.2*]

A.4 Right of Entry: The Regional Administrator of USEPA, the Control Officer, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises where a Part 70 Source is located or where records must be kept:

- (a) To inspect the stationary source, including monitoring and control equipment, work practices, operations, and emission-related activity;
- (b) To inspect and duplicate, at reasonable times, records required by this Permit to Operate;
- (c) To sample substances or monitor emissions from the source or assess other parameters to assure compliance with the permit or applicable requirements, at reasonable times. Monitoring of emissions can include source testing. [*Re: District Rule 1303.D.2*]

A.5 Payment of Fees: The permittee shall reimburse the District for all its Part 70 permit processing and compliance expenses for the stationary source on a timely basis. Failure to reimburse on a timely basis shall be a violation of this permit and of applicable requirements and can result in forfeiture of the Part 70 permit. Operation without a Part 70 permit subjects the source to potential enforcement action by the District and the USEPA pursuant to section 502(a) of the Clean Air Act. [*Re: District Rules 1303.D.1 and 1304.D.11, 40 CFR 70.6*]

A.6 Prompt Reporting of Deviations: The permittee shall submit a written report to the District documenting each and every deviation from the requirements of this permit or any applicable federal requirements within 7 days after discovery of the violation, but not later than 180-days after the date of occurrence. The report shall clearly document 1) the probable cause and extent of the deviation, 2) equipment involved, 3) the quantity of excess pollutant emissions, if any, and 4) actions taken to correct the deviation. The requirements of this condition shall not apply to deviations reported to District in accordance with Rule 505 *Breakdown Conditions*, or Rule 1303.F *Emergency Provisions*. [District Rule 1303.D.1, 40 CFR 70.6(a) (3)]

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- A.7 **Reporting Requirements/Compliance Certification:** The permittee shall submit compliance certification reports to the USEPA and the Control Officer every six months. These reports shall be submitted on District forms and shall identify each applicable requirement/condition of the permit, the compliance status with each requirement/condition, the monitoring methods used to determine compliance, whether the compliance was continuous or intermittent, and include detailed information on the occurrence and correction of any deviations (excluding emergency upsets) from permit requirement. The reporting periods shall be each half of the calendar year, e.g., January through June for the first half of the year. These reports shall be submitted by September 1 and March 1, respectively, each year. Supporting monitoring data shall be submitted in accordance with the "Semi-Annual Monitoring/Compliance Verification Report" condition in section 9.C. The permittee shall include a written statement from the responsible official, which certifies the truth, accuracy, and completeness of the reports. [*Re: District Rules 1303.D.1, 1302.D.3, 1303.2.c*]
- A.8 **Federally-Enforceable Conditions:** Each federally-enforceable condition in this permit shall be enforceable by the USEPA and members of the public. None of the conditions in the District-only enforceable section of this permit are federally-enforceable or subject to the public/USEPA review. [*Re: CAAA, § 502(b)(6), 40 CFR 70.6*]
- A.9 **Recordkeeping Requirements:** Records of required monitoring information shall include the following:
- (a) The date, place as defined in the permit, and time of sampling or measurements;
 - (b) The date(s) analyses were performed;
 - (c) The company or entity that performed the analyses;
 - (d) The analytical techniques or methods used;
 - (e) The results of such analyses; and
 - (f) The operating conditions as existing at the time of sampling or measurement.

The records (electronic or hard copy), as well as all supporting information including calibration and maintenance records, shall be maintained for a minimum of five (5) years from date of initial entry by BreitBurn Energy and shall be made available to the District upon request. [*Re: District Rule 1303.D.1.f, 40CFR70.6(a)(3)(ii)(A)*]

- A.10 **Conditions for Permit Reopening:** The permit shall be reopened and revised for cause under any of the following circumstances:
- (a) Additional Requirements: If additional applicable requirements (e.g., NSPS or MACT) become applicable to the source which has an unexpired permit term of three (3) or more years, the permit shall be reopened. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. However, no such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been

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extended. All such re-openings shall be initiated only after a 30-day notice of intent to reopen the permit has been provided to the permittee, except that a shorter notice may be given in case of an emergency.

- (b) Inaccurate Permit Provisions: If the District or the USEPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit, the permit shall be reopened. Such re-openings shall be made as soon as practicable.
- (c) Applicable Requirement: If the District or the USEPA determines that the permit must be revised or revoked to assure compliance with any applicable requirement including a federally-enforceable requirement, the permit shall be reopened. Such re-openings shall be made as soon as practicable.

Administrative procedures to reopen and revise/revoke/reissue a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which cause to reopen exists.

If a permit is reopened, the expiration date does not change. Thus, if the permit is reopened, and revised, then it will be reissued with the expiration date applicable to the re-opened permit. [*Re: 40 CFR 70.7, 40 CFR 70.6*]

- A.11 **Grounds for Revocation**: Failure to abide by and faithfully comply with this permit shall constitute grounds for the APCO to petition for permit revocation pursuant to California Health & Safety Code Section 42307 *et seq.*
- A.12 **Consistency with Analysis**: Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as documented in the District's project file) and the District's analyses under which this permit is issued as documented in the Permit Analyses prepared for and issued with the permit.
- A.13 **Equipment Maintenance**: The equipment listed in this permit shall be properly maintained and kept in good condition at all times. The equipment manufacturer's maintenance manual, maintenance procedures and/or maintenance checklists (if any) shall be kept on site.
- A.14 **Compliance**: Nothing contained within this permit shall be construed as allowing the violation of any local, state or federal rules, regulations, air quality standards or increments.
- A.15 **Severability**: In the event that any condition herein is determined to be invalid, all other conditions shall remain in force.

- A.16 **Conflict Between Permits.** The requirements or limits that are more protective of air quality shall apply if any conflict arises between the requirements and limits of this permit and any other permitting actions associated with the equipment permitted herein.
- A.17 **Access to Records and Facilities:** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, the permittee shall make such records available or provide access to such facilities upon notice from the District. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A.
- A.18 **Equipment Identification:** Identifying tag(s) or name plate(s) shall be displayed on the equipment to show manufacturer, model number, and serial number. The tag(s) or plate(s) shall be issued by the manufacturer and shall be affixed to the equipment in a permanent and conspicuous position.
- A.19 **Emission Factor Revisions.** The District may update the emission factors for any calculation based on USEPA AP-42 or District emission factors at the next permit modification or permit reevaluation to account for USEPA and/or District revisions to the underlying emission factors.

9.B Generic Conditions

The generic conditions listed below apply to all emission units, regardless of their category or emission rates. In case of a discrepancy between the wording of a condition and the applicable federal or District rule(s), the wording of the rule shall control.

Section B lists the applicable 'generic' permit conditions, including emission standards for all equipment in this permit. Conditions listed in this section are enforceable by the USEPA, the District, the State of California and the public. Where any reference contained in this section refers to any other part of this permit, that part of the permit referred to is federally enforceable. In case of a discrepancy between the wording of a condition and the applicable federal or District rule(s), the wording of the rule shall control.

- B.1 **Circumvention (Rule 301):** A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of District Rule 303. [*Re: District Rule 301*]

- B.2 **Nuisance (Rule 303):** No pollutant emissions from any source at the permittee shall create nuisance conditions. Operations shall not endanger health, safety or comfort, nor shall they damage any property or business. [*Re: District Rule 303*]
- B.3 **Organic Solvents (Rule 317):** The permittee shall comply with the emission standards listed in Rule 317.B. Compliance with this condition shall be based on the permittee's compliance with Condition C.5 of PTO 8240-R7 and facility inspections. [*Re: District Rule 317*]
- B.4 **Metal Surface Coating Thinner and Reducer (Rule 322):** The use of photochemically reactive solvents as thinners or reducers in metal surface coatings is prohibited. Compliance with this condition shall be based on the permittee's compliance with Condition C.5 of PTO 8240-R7 and facility inspections. [*Re: District Rule 322*]
- B.5 **Architectural Coatings (Rule 323):** The permittee shall comply with the coating ROC content and handling standards listed in Section D of Rule 323 as well as the Administrative requirements listed in Section F of Rule 323. Compliance with this condition shall be based on the permittee's compliance with Condition C.5 of PTO 8240-R7 and facility inspections. [*Re: District Rules 323, 317, 322, 324*]
- B.6 **Disposal and Evaporation of Solvents (Rule 324):** The permittee shall not dispose through atmospheric evaporation of more than one and a half gallons of any photochemically reactive solvent per day. Compliance with this condition shall be based on the permittee's compliance with Condition C.5 of PTO 8240-R7 and facility inspections. [*Re: District Rule 324*]
- B.7 **Emergency Episode Plans (Rule 603):** During emergency episodes, the permittee shall implement the Emergency Episode Plan dated March 30, 1999. [*Reference District Rule 603*]
- B.8 **Adhesives and Sealants (Rule 353):** The permittee shall not use adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers, unless the permittee complies with the following:
- (a) Such materials used are purchased or supplied by the manufacturer or suppliers in containers of 16 fluid ounces or less; or alternately
 - (b) When the permittee uses such materials from containers larger than 16 fluid ounces and the materials are not exempt by Rule 353, Section B.1, the total reactive organic compound emissions from the use of such material shall not exceed 200 pounds per year unless the substances used and the operational methods comply with Sections D, E, F, G, and H of Rule 353. Compliance shall be demonstrated by recordkeeping in accordance with Section B.2 and/or Section O of Rule 353. [*Re: District Rule 353*]

9.C Requirements and Equipment Specific Conditions

This section contains non-generic federally-enforceable conditions, including emissions and operations limits, monitoring, recordkeeping and reporting for each specific equipment group. This section may also contain other non-generic conditions.

C.12 Thermal Oxidizer. The following equipment are included in this emissions unit category:

| Dev No | Equipment |
|--------|--|
| 112495 | Burner – American Combustion Technologies Ultra Low NO _x ACT 09GMF rated at 50.000 MMBtu/hr |
| 112499 | Burner Pilot – rated at 0.100 MMBtu/hr |
| 112496 | Combustion Chamber - Energy & Environment Inc. E&E-50M-ULN-HF |
| 112497 | Blower - TATUNG, CO Super MAK, WH0604FFA, rated at 60.00 horsepower |
| 112498 | Flow Meter - Total Flow, model 6713 |

- (a) Emission Limitations. The emissions from the equipment permitted herein shall not exceed the values listed in Table 1. Compliance shall be based on the operational, monitoring, recordkeeping and reporting conditions of this permit. Also:
 - (i) Emissions of NO_x (as NO₂) from the thermal oxidizer shall not exceed a NO_x stack concentration of 12 ppmvd at 3% O₂ or a NO_x stack emission rate of 0.0146 lb/MMBtu. Compliance with this condition shall be based on source testing.
 - (ii) Emissions of Reactive Organic Compounds (as methane) from the thermal oxidizer shall not exceed a ROC stack concentration of 3 ppmvd at 3% O₂ or a ROC stack emission rate of 0.0013 lb/MMBtu. Compliance with this condition shall be based on source testing.
 - (iii) Emissions of carbon monoxide from the thermal oxidizer shall not exceed a CO stack concentration of 50 ppmvd at 3% O₂ or a CO stack emission rate of 0.0371 lb/MMBtu. Compliance with this condition shall be based on source testing.
- (b) Operational Restrictions. The equipment permitted herein is subject to the following operational restrictions:
 - (i) *Planned Operation.* The daily, quarterly, and annual planned heat input to the thermal oxidizer shall not exceed the values listed below. These limits are based on the design or otherwise limiting rating of the thermal oxidizer and the heat input values listed in

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the permit application. Unless otherwise designated by the APCO, the following fuel heat content shall be used for determining compliance: Field gas = 1,200 Btu/scf.

| | | |
|----------------------|--------------------|------------|
| Daily Heat Input | <u>1,200.000</u> | MMBtu/day |
| Quarterly Heat Input | <u>56,979.000</u> | MMBtu/qtr |
| Annual Heat Input | <u>227,916.000</u> | MMBtu/year |

- (ii) *Pilot Operation.* The daily and annual pilot heat input to the thermal oxidizer shall not exceed the values listed below. These limits are based on the design or otherwise limiting rating of the thermal oxidizer and the heat input values listed in the permit application. Unless otherwise designated by the APCO, the following fuel heat content shall be used for determining compliance: Field gas = 1,200 Btu/scf.

| | | |
|-------------------|----------------|------------|
| Daily Heat Input | <u>2.400</u> | MMBtu/day |
| Annual Heat Input | <u>876.000</u> | MMBtu/year |

- (iii) *Natural Gas Fuel Sulfur Limit.* The total sulfur and hydrogen sulfide (H₂S) content (calculated as H₂S at standard conditions, 60°F and 14.7 psia) of the gas combusted in the thermal oxidizer shall not exceed 23 ppmv. In order to ensure that this limit is not exceeded, the operator shall:

1. Measure the H₂S content of the fuel gas weekly, using Draeger tubes or a District-approved equivalent.
2. If any Draeger tube measurement indicates an H₂S content greater than 18 ppm_v, the permittee shall measure the total sulfur content of the gaseous fuel within one week of the Draeger tube measurement in accordance with ASTM-D1072 or a District approved equivalent method.
3. Records shall be kept on site and made available for inspection by the District upon request.

- (iv) The thermal oxidizer shall be operated within the design temperature range of 1,500° F to 2,050° F.

- (v) Thermal Oxidizer Operation: The thermal oxidizer shall comply with the following:

1. The outlet shall be equipped with an automatic ignition system including a pilot-light gas source or equivalent system, or, shall operate with a pilot flame present at all times -- with the exception of purge periods for automatic-ignition equipped thermal oxidizers.

2. The presence of the flame in the pilot of the thermal oxidizer shall be continuously monitored using a thermocouple or an equivalent device that detects the presence of a flame, unless such device(s) can be demonstrated by the permittee to be infeasible, based on engineering, safety or costs constraints, and to the satisfaction of the Control Officer; and,
 3. The flame shall be operating at all times when combustible gases are vented through the thermal oxidizer.
- (c) Monitoring. The equipment permitted herein is subject to the following monitoring requirements:
- (i) *Gas Metering.* The volume of gas combusted in the thermal oxidizer (in units of standard cubic feet) shall be measured through the use of dedicated District-approved calibrated non-resettable totalizing fuel meter. The gas meter shall be temperature and pressure corrected. The fuel meter shall be accurate to within five percent (5%) of the full scale reading. The fuel meter shall be calibrated in accordance with the fuel meter manufacturer's procedures, but no later than the date of the next required emissions source test.
 - (ii) *Process Monitoring and Calibration Plan.* Breitburn shall comply with the District-approved *Process Monitoring and Calibration Plan* approved September 2010.
 - (iii) *Operating Temperature.* The thermal oxidizer operating temperature shall be monitored by the burner management system/data logger when the thermal oxidizer is in operation.
- (d) Recordkeeping. The permittee shall record and maintain the following information. This data shall be maintained for a minimum of five (5) years from the date of each entry and made available to the District upon request:
- (i) The volume (in units of standard cubic feet) of gas combusted in the thermal oxidizer each month and totaled for each calendar quarter and year.
 - (ii) Maintenance logs for the thermal oxidizer, the low NO_x burner, and the fuel flow meter.
 - (iii) Documentation to demonstrate compliance with the *Natural Gas Fuel Sulfur Limit* condition in this permit.
 - (iv) *Fuel Use Meter Calibration Records.* Calibration records of District-approved fuel use meter.

- (v) *Source Test Reports.* Source test reports for all District-required stack emission tests.
 - (e) **Reporting.** By March 1st of each year, a written report documenting compliance with the terms and conditions of this permit for the previous calendar year shall be provided by the permittee to the District (Attn: *Annual Report Coordinator*). The report shall contain information necessary to verify compliance with the emission limits and other requirements of this permit. The report shall be in a format approved by the District. All logs and other basic source data not included in the report shall be made available to the District upon request. The report shall include the following information:
 - (i) The volume (in units of standard cubic feet) of natural gas combusted in the thermal oxidizer summarized monthly, quarterly, and annually.
 - (ii) Documentation to demonstrate compliance with the *Natural Gas Fuel Sulfur Limit* condition in this permit.
- C.13 **Best Available Control Technology.** The permittee shall apply emission control technology and plant design measures that represent Best Available Control Technology (BACT) to the operation of the thermal oxidizer described in this permit and the District's Permit Evaluation for this permit. The BACT shall be in place, and shall be operational at all times, for the life of the project. Additional BACT related requirements are defined in the monitoring, recordkeeping and reporting permit conditions.
- C.14 **Source Testing.** The following source testing provisions shall apply:
- a. The permittee shall conduct source testing of air emissions and process parameters listed in Table 2 of this permit. Source testing shall be performed annually using February as the anniversary date. More frequent source testing may be required if the equipment does not comply with permitted limitations or if other compliance problems, as determined by the District, occur.
 - b. The permittee shall submit a written source test plan to the District for approval at least thirty (30) days prior to initiation of each source test. The source test plan shall be prepared consistent with the District's Source Test Procedures Manual (revised May 1990 and any subsequent revisions). The permittee shall obtain written District approval of the source test plan prior to commencement of source testing. The District shall be notified at least ten (10) calendar days prior to the start of source testing activity to arrange for a mutually agreeable source test date when District personnel may observe the test.
 - c. Source test results shall be submitted to the District within forty-five (45) calendar days following the date of source test completion and shall be consistent with the requirements approved within the source test plan. Source test results shall document the permittee's compliance status with BACT requirements, mass emission rates in Table 1 and

applicable permit conditions, rules and NSPS (if applicable). All District costs associated with the review and approval of all plans and reports and the witnessing of tests shall be paid by the permittee as provided for by District Rule 210.

- d. A source test for an item of equipment shall be performed on the scheduled day of testing (the test day mutually agreed to) unless circumstances beyond the control of the operator prevent completion of the test on the scheduled day. Such circumstances include mechanical malfunction of the equipment to be tested, malfunction of the source test equipment, delays in source test contractor arrival and/or set-up, or unsafe conditions on site. Except in cases of an emergency, the operator shall seek and obtain District approval before deferring or discontinuing a scheduled test, or performing maintenance on the equipment item on the scheduled test day. If the test cannot be completed on the scheduled day, then the test shall be rescheduled for another time with prior authorization by the District. Once the sample probe has been inserted into the exhaust stream of the equipment unit to be tested (or extraction of the sample has begun), the test shall proceed in accordance with the approved source test plan. In no case shall a test run be aborted except in the case of an emergency or unless approval is first obtained from the District. Failing to perform the source test of an equipment item on the scheduled test day without a valid reason and without District's authorization shall constitute a violation of this permit. If a test is postponed due to an emergency, written documentation of the emergency event shall be submitted to the District by the close of the business day following the scheduled test day.

The timelines in (a), (b), and (c) above may be extended for good cause provided a written request is submitted to the District at least three (3) days in advance of the deadline, and approval for the extension is granted by the District

9.D District-Only Conditions

The following section lists permit conditions that are not enforceable by the USEPA or the public. However, these conditions are enforceable by the District and the State of California. These conditions are issued pursuant to District Rule 206 (*Conditional Approval of Authority to Construct or Permit to Operate*), which states that the Control Officer may issue an operating permit subject to specified conditions. Permit conditions have been determined as being necessary for this permit to ensure that operation of the facility complies with all applicable local and state air quality rules, regulations and laws. Failure to comply with any condition specified pursuant to the provisions of Rule 206 shall be a violation of that rule, this permit, as well as any applicable section of the California Health & Safety Code.

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D.1 **Permit Activation.** All aspects of this permit are enforceable by the District and the State of California upon the issuance date stamped below. The Part 70 aspects of this permit are not final until:

- (a) The USEPA has provided written comments to the District and these comments require no modification to this permit. The District will issue a letter stating that this permit is a final Part 70 permit. The effective date that this permit will be considered a final Part 70 permit will be the date stamped on the District's letter.
- (b) After the USEPA has provided the District written comments that require a modification to this permit, the District will modify this permit to address the USEPA's comments and issue the Part 70 permit as final. The re-issued permit will supersede this permit in its entirety.



AIR POLLUTION CONTROL OFFICER

AUG 08 2011

DATE

Attachments:

- Emission Tables
- BACT Table
- Permit Equipment List
- Permit Evaluation for Permit to Operate 13000

Notes:

- Reevaluation Due Date: June 2, 2012
- Stationary sources are subject to an annual emission fee (see Fee Schedule B-3 of Rule 210).
- This permit supersedes Authority to Construct 13000

**Table 1
BreitBurn Newlove Lease Thermal Oxidizer**

| | NOx | ROC | SOx | CO | PM | PM10 |
|---|-------|-------|-------|-------|-------|-------|
| Thermal Oxidizer - Planned Operation | | | | | | |
| lbs/day | 17.54 | 1.53 | 3.89 | 44.48 | 24.00 | 24.00 |
| tons/qtr | 0.42 | 0.04 | 0.09 | 1.06 | 0.57 | 0.57 |
| tons/year | 1.67 | 0.15 | 0.37 | 4.22 | 2.28 | 2.28 |
| Thermal Oxidizer - Pilot | | | | | | |
| lbs/day | 0.035 | 0.003 | 0.008 | 0.089 | 0.048 | 0.048 |
| tons/qtr | 0.002 | 0.000 | 0.000 | 0.004 | 0.002 | 0.002 |
| tons/year | 0.006 | 0.001 | 0.001 | 0.016 | 0.009 | 0.009 |
| Fugitive Hydrocarbons | | | | | | |
| lbs/day | | 0.49 | | | | |
| tons/qtr | | 0.02 | | | | |
| tons/year | | 0.09 | | | | |
| Total | | | | | | |
| lbs/day | 17.57 | 2.02 | 3.89 | 44.57 | 24.05 | 24.05 |
| tons/qtr | 0.42 | 0.06 | 0.09 | 1.06 | 0.57 | 0.57 |
| tons/year | 1.67 | 0.24 | 0.37 | 4.24 | 2.29 | 2.29 |

| TABLE 2.0 - SOURCE TEST PARAMETERS PTO 13000 BreitBurn Newlove Lease - Thermal Oxidizer | | |
|--|--|---|
| Emission & Test Points | Pollutants/Parameters² | Test Methods^{1, 3} |
| Oxidizer Stack ² | NO _x - ppmv & lb/hr CO - ppmv & lb/hr ROC - lb/hr Sampling Point Loc. Stack Gas Flow Rate O ₂ , CO ₂ , Dry Mole Wt Moisture Content Oxydizer Stack Temperature | EPA Method 7E EPA Method 10 EPA Method 18 EPA Method 1 EPA Method 2 EPA Method 3 EPA Method 4 (°F) |
| Thermal Oxidizer Fuel Gas(es) | Fuel Gas Flow Rate Higher Heating Value Total Sulfur Content ⁴ | Plant Gas meter ASTM D 1826-88 ASTM D 1072 |

Site Specific Requirements

- (1) Alternative methods may be acceptable on a case-by-case basis.
- (2) The emission rates shall be based on EPA Methods 2 and 4, or Method 19 along with the heat input rate.
- (3) For NO_x, CO, ROC, and O₂ a minimum of three 40-minute runs shall be obtained during each test.
- (4) Total sulfur content fuel samples shall be obtained using EPA Method 18 with Tedlar Bags (or equivalent) equipped with Teflon tubing and fittings. Turnaround time for laboratory analysis of these samples shall be no more than 24 hours from sampling in the field.
- (5) All emission determinations shall be made in the as-found operating condition, at the maximum attainable firing rate allowed by the District permit. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer.

Table 3
Best Available Control Technology

| Emission Source | Pollutant | BACT Technology | BACT Performance Standard |
|------------------------|------------------|--|---|
| Thermal Oxidizer | NO _x | Low NOx burner operated between 1500 °F to 2050 °F | NOx stack concentration shall not exceed 12 ppmvd at 3 % O ₂ or a stack emission rate of 0.0146 lb/MMBtu |

Equipment List for Part 70 Minor Modification 13000 / Permit to Operate 13000

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PERMIT EQUIPMENT LIST - TABLE A

PTO 13000 / FID: 03321 Newlove Lease / SSID: 02667

A PERMITTED EQUIPMENT

1 Enclosed Thermal Oxidizer System

1.1 Burner

| | | | |
|---------------------------|--|----------------------|------------------|
| <i>Device ID #</i> | 112495 | <i>Device Name</i> | Burner |
| <i>Rated Heat Input</i> | 50.000 MMBtu/Hour | <i>Physical Size</i> | 50.00 MMBtu/Hour |
| <i>Manufacturer</i> | American Combustion Technologies, Inc. | <i>Operator ID</i> | |
| <i>Model</i> | Ultra Low NOx ACT 09GMF | <i>Serial Number</i> | 00377 |
| <i>Location Note</i> | Newlove 67 Injection Site | | |
| <i>Device Description</i> | When combusting natural gas or well gas, the burner is guaranteed by the manufacturer to operate below 12 ppm NOx, 3 ppm ROC, and 50 ppm CO, corrected to 3% excess oxygen. Equipped with a Siemens LMV51 Linkageless Burner Management System. | | |

1.2 Burner Pilot

| | | | |
|---------------------------|---------------------------|----------------------|---------------------|
| <i>Device ID #</i> | 112499 | <i>Device Name</i> | Burner Pilot |
| <i>Rated Heat Input</i> | 0.100 MMBtu/Hour | <i>Physical Size</i> | 0.10 MMBtu/Hour |
| <i>Manufacturer</i> | | <i>Operator ID</i> | |
| <i>Model</i> | | <i>Serial Number</i> | |
| <i>Location Note</i> | Newlove 67 Injection Site | | |
| <i>Device Description</i> | | | |

Equipment List for Part 70 Minor Modification 13000 / Permit to Operate 13000

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1.3 Combustion Chamber

| <i>Device ID #</i> | 112496 | <i>Device Name</i> | Combustion Chamber |
|---------------------------|--|------------------------------------|---------------------------|
| <i>Rated Heat Input</i> | | <i>Physical Size</i> | 1.00 Installation |
| <i>Manufacturer</i> | Energy & Environment Inc. | <i>Operator ID</i> | |
| <i>Model</i> | E&E-50M-ULN-HF | <i>Serial Number</i> 383-EE 50m | |
| <i>Location Note</i> | Newlove 67 Injection Site | | |
| <i>Device Description</i> | Dimensions: 22 feet long by 8 feet in diameter. Size: 12,000 - 22,000 scfm Operating Temperature 1,500 - 2,050 F Forced draft Stack Dimensions: 19.5 feet high by 7.5 feet in diameter. Test ports located at 10 feet and 15.5 feet above ground level. | | |

1.4 Blower

| <i>Device ID #</i> | 112497 | <i>Device Name</i> | Blower |
|---------------------------|---------------------------|------------------------------------|--------------------------------------|
| <i>Rated Heat Input</i> | | <i>Physical Size</i> | 60.00 Horsepower (Electric Motor) |
| <i>Manufacturer</i> | TATUNG, CO Super MAK | <i>Operator ID</i> | |
| <i>Model</i> | WH0604FFA | <i>Serial Number</i> 9 207 6379 | |
| <i>Location Note</i> | Newlove 67 Injection Site | | |
| <i>Device Description</i> | | | |

1.5 Flow Meter

| <i>Device ID #</i> | 112498 | <i>Device Name</i> | Flow Meter |
|---------------------------|--|-----------------------------|-------------------|
| <i>Rated Heat Input</i> | | <i>Physical Size</i> | |
| <i>Manufacturer</i> | Total Flow | <i>Operator ID</i> | |
| <i>Model</i> | 6713 | <i>Serial Number</i> 8 9410 | |
| <i>Location Note</i> | Newlove 67 Injection Site | | |
| <i>Device Description</i> | Equipped with an Omega RD 8250 data logger. All results will be stored by the existing Orcutt Hill SCADA system. | | |

Equipment List for Part 70 Minor Modification 13000 / Permit to Operate 13000

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1.6 Valves - Gas Service

| <i>Device ID #</i> | 112500 | <i>Device Name</i> | Valves - Gas Service |
|-------------------------|---------------|----------------------|-----------------------------|
| <i>Rated Heat Input</i> | | <i>Physical Size</i> | |
| <i>Manufacturer</i> | | <i>Operator ID</i> | |
| <i>Model</i> | | <i>Serial Number</i> | |
| <i>Location Note</i> | | | |
| <i>Device</i> | 15 clps | | |
| <i>Description</i> | | | |

1.7 Flanges & Connections - Gas Service

| <i>Device ID #</i> | 112501 | <i>Device Name</i> | Flanges & Connections - Gas Service |
|-------------------------|---------------|----------------------|--|
| <i>Rated Heat Input</i> | | <i>Physical Size</i> | |
| <i>Manufacturer</i> | | <i>Operator ID</i> | |
| <i>Model</i> | | <i>Serial Number</i> | |
| <i>Location Note</i> | | | |
| <i>Device</i> | 50 clps | | |
| <i>Description</i> | | | |



**PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13000 /
PERMIT TO OPERATE 13000**

Page 1 of 5

1.0 BACKGROUND

1.1 General: The permit to operate application was received on March 9, 2010 to operate an enclosed thermal oxidizer. The Source Compliance Demonstration Period (SCDP) inspection was conducted on December 3, 2009. The inspection report indicates that the SCDP conditions were satisfied, including a source test of the thermal oxidizer performed on February 16, 2010 which was approved by the District.

1.2 Permit History:

| PERMIT | FINAL ISSUED | PERMIT DESCRIPTION |
|--------------------------|--------------|---|
| PT-70/Reeval 08240 R7 | 06/02/2009 | Three year reeval |
| ATC 13134 | 06/15/2009 | Increase throughput from 1,100 BOPD to 3,000 BOPD and replace the VRU compressor to accommodate this increase. |
| ATC 13000 | 07/17/2009 | 50 MMBtu Thermal Oxidizer used to combust gas diverted from the steam generators and excess produced gas. |
| PTO 13141 | 08/26/2009 | Permit 4 new wells at the Diatomite Project. |
| PT-70 R 13275 | 08/26/2009 | See PTO 13134 |
| ATC 13140 | 12/02/2009 | Permit for 26 Sx sands wells and 3 Monterey wells on the Newlove Lease. Also included is an automatic well tester and related piping. The equipment in this permit was previously claimed as de minimis by BreitBurn, but since the work was done as a project, a permit was required and considered NEI. |
| ATC 13230 | 12/29/2009 | Eighteen additional new oil & gas wells on the Newlove Lease for future expansion. |
| ATC 13397 | 06/16/2010 | New H2S scrubber serving Compressor K-4. |

**PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13000 / PERMIT TO OPERATE 13000**

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| PERMIT | FINAL ISSUED | PERMIT DESCRIPTION |
|---------------------|--------------|---|
| PTO 13140 | 07/19/2010 | Permit for 26 Sx sands wells and 3 Monterey wells on the Newlove Lease. Also included is an automatic well tester and related piping. The equipment in this permit was previously claimed as de minimis by BreitBurn, but since the work was done as a project, a permit was required and considered NEI. |
| PTO 13134 | 07/19/2010 | PTO for throughput increase and new VRU compressor. See PT-70 R 13275 |
| ATC 13513 | 11/04/2010 | New loading rack for non-diatomite crude. |
| ATC Mod 12084 03 | 11/05/2010 | Modify Phase 2. |

1.3 Compliance History:

| VIOLATION TYPE | NUMBER | ISSUE DATE | DESCRIPTION OF VIOLATION |
|----------------|--------|------------|--|
| NOV | 9547 | 02/24/2010 | The fuel gas to the steam generator was found to contain 24 ppm total sulfur. The limit is 23 ppm total sulfur. |
| NOV | 9548 | 02/24/2010 | No gas sample was taken for analysis during the 3rd quarter of 2009. |
| NOV | 9563 | 08/13/2010 | A sample valve was left open on a tank. When the tank filled, a spill was the result. A Deviation Report was submitted as an e-mail attachment on August 06, 2010. |
| NOV | 9696 | 12/17/2010 | The Source has constructed and operated 44 Seep Cans and 3 Baker Tanks without the benefit of a District issued permit. |

2.0 ENGINEERING ANALYSIS

2.1 Equipment/Processes: This facility does not have a pipeline to send the gas to other operators and, BreitBurn has had to reduce production from existing wells at times in order to avoid venting gas in excess of what can be combusted by IC engines and two steam generators currently on the Newlove Lease. The operation of this thermal oxidizer will allow Breitburn to handle produced gas due to increased production from new wells, as well as gas diverted from the steam generators when they are down. The thermal oxidizer meets BACT standards.

2.2 Emission Controls: The thermal oxidizer is equipped with a burner guaranteed by the manufacturer not to exceed NO_x stack concentration of 12 ppmvd at 3% O₂ (0.0146 lb/MMBtu), a Reactive Organic Compounds stack concentration of 3 ppmvd at 3% O₂ (0.0013 lb/MMBtu), and a CO stack

PERMIT EVALUATION FOR
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concentration of 50 ppmvd at 3% O₂ (0.0371 lb/MMBtu). The thermal oxidizer is equipped with a Siemens Burner Management System.

- 2.3 Emission Factors: Attachment "D" lists the calculations for the NO_x, ROC and CO emission factors. Detailed emission calculations are shown in Attachments A, B, C.
- 2.4 Reasonable Worst Case Emission Scenario: Worst case emissions will occur when the steam generators are down, and both fuel gas to the generators and the excess field gas are routed to thermal oxidizer simultaneously. The PTE of the thermal oxidizer is based on this scenario and the inclusion of continuous pilot emissions.
- 2.5 Emission Calculations: Detailed emission calculation spreadsheets may be found in Emission Calculations Attachment. These emissions define the Potential to Emit for the permitted equipment. The heat input limits in the PTO have been corrected from the ATC. The ATC heat input limits were not converted from units MCF/day to MMBtu/day, however the permitted emission limits have not changed because the correct values were used in the calculations.
- 2.6 Special Calculations: There are no special calculations.
- 2.7 BACT Analyses: The use of a permitted thermal oxidizer with a guaranteed NO_x emission level of 12 ppmv at 3 % O₂ or a stack emission rate of 0.0146 lb/MMBtu meets BACT.
- 2.8 Enforceable Operational Limits: The permit has enforceable operating conditions that ensure the equipment is operated properly. The temperature range was increased from the ATC based on source tests demonstrating compliance at a higher temperature. A biennial source test requirement from the ATC has been corrected to an annual source test due to BACT requirements.
- 2.9 Monitoring Requirements: Monitoring of the equipment's operational limits are required to ensure that these are enforceable. Source testing of the thermal oxidizer is required as well monitoring of the volume of gas burned in the thermal oxidizer.
- 2.10 Recordkeeping and Reporting Requirements: The permit requires that the data which is monitored be recorded and reported to the District.

3.0 REEVALUATION REVIEW (not applicable)

4.0 REGULATORY REVIEW

- 4.1 Partial List of Applicable Rules: This project is anticipated to operate in compliance with the following rules:

Rule 101. Compliance of Existing Facilities
Rule 201. Permits Required

PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13000 / PERMIT TO OPERATE 13000

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- Rule 202. Exemptions to Rule 201
- Rule 205. Standards for Granting Permits
- Rule 303. Nuisance
- Rule 309. Specific Contaminants
- Rule 310. Odorous Organic Sulfides
- Rule 311. Sulfur Content of Fuels
- Rule 331. Fugitive Emissions Inspection and Maintenance
- Rule 359. Flares and Thermal Oxidizers
- Rule 505. Breakdown Procedures
- Rule 801. New Source Review
- Rule 802. Nonattainment Review
- Rule 803. Prevention of Significant Deterioration

4.2 Rules Requiring Review:

Rule 359 Flares and Thermal Oxidizers

1. The permitted thermal oxidizer has manufacturer guaranteed emission factors lower than the emission standards in 359.D.5.c.
2. A flare minimization plan is not required because thermal oxidizers whose flaring operations solely consist of planned, continuous flaring due to the non-availability of a produced gas pipeline outlet are exempt from this requirement.

- 4.3 NEI Calculations: The net emission increase calculation is used to determine whether certain requirements must be applied to a project (e.g., offsets, AQIA, PSD BACT). The thermal oxidizer has four sources of emissions: 1) Combustion of gas diverted from the steam generators, 2) Combustion of excess produced gas, 3) Combustion of pilot gas, and 4) Fugitive hydrocarbon emissions. However, the gas diverted from the steam generators have previously been accounted for in the steam generator permit emissions as a P1 term for NEI. Therefore this component can be considered a P2 term under the operating scenario of steam generator gas diverted to the thermal oxidizer. In effect, the PTE associated with the excess field gas combusted in the thermal oxidizer constitutes the NEI for this permit action. The basis for this NEI is provided in the attached summary of the NEI for the BreitBurn Orcutt Hill Stationary Source.

5.0 AQIA

The project is not subject to the Air Quality Impact Analysis requirements of Regulation VIII.

6.0 OFFSETS/ERCs

- 6.1 Offsets: The emission offset thresholds of Regulation VIII are not exceeded.
- 6.2 ERCs: This source does not generate emission reduction credits.

PERMIT EVALUATION FOR
PART 70 MINOR MODIFICATION 13000 / PERMIT TO OPERATE 13000

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7.0 AIR TOXICS

An air toxics health risk assessment was not performed for this permitting action.

8.0 CEQA / LEAD AGENCY

This project is exempt from CEQA pursuant to the Environmental Review Guidelines for the Santa Barbara County District (revised November 16, 2000). Appendix A (*District Projects Exempt from CEQA and Equipment or Operations Exempt from CEQA*) provides an exemption specifically for permits to operate. No further action is necessary.

9.0 SCHOOL NOTIFICATION

A school notice pursuant to the requirements of H&SC §42301.6 was not required.

10.0 PUBLIC and AGENCY NOTIFICATION PROCESS/COMMENTS ON DRAFT PERMIT

This project was not subject to public notice. There were only minor comments on the draft permit.

11.0 FEE DETERMINATION

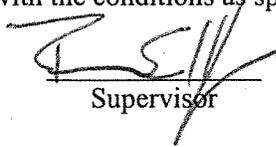
Fees for the District's work effects are assessed on a fee basis. The Project Code is 300000 (*Onshore Oil and Gas Lease*). See the *Fee Statement Attachment* for the fee calculations.

12.0 RECOMMENDATION

It is recommended that this permit be granted with the conditions as specified in the permit.

Stefanie Boehme
AQ Engineer

5/31/2011
Date


Supervisor

8/3/11
Date

13.0 ATTACHMENTS

- A. Emission Calculations
- B. IDS Tables
- C. Fee Statement

ATTACHMENT A
Emission Calculations

Attachment A-1 - Planned Flaring - Gas Diverted from Steam Generators

Permit to Operate 13000

BreitBurn - Newlove Lease

Flare Emission Calculations

| | | Reference |
|------------------|-----------------|--------------------|
| Flare Throughput | 0.750 MMScf/day | Permit Application |
| Gas Btu Content | 1,200 Btu/scf | Permit Application |
| Sulfur Content | 23 ppmv as H2S | Permit Application |

| Emission Factors | lb/MMBtu Reference |
|-------------------------|-------------------------------------|
| NOx | 0.0146 Based on 12 ppm at 3% Oxygen |
| ROC | 0.0013 Based on 3 ppm at 3% Oxygen |
| SOx | 0.0032 Mass Balance Calculation |
| CO | 0.0371 Based on 50 ppm at 3% Oxygen |
| PM | 0.0200 APCD |
| PM10 | 0.0200 APCD |

| Btu Throughput | Reference |
|------------------------|----------------------------|
| 37.500 MMBtu/hour | Daily divided by 24 hr/day |
| 900.000 MMBtu/day | Permit Application |
| 29,604.000 MMBtu/qtr | Permit Application |
| 118,416.000 MMBtu/year | Permit Application |

Emissions

| | NOx | ROC | SOx | CO | PM | PM10 |
|-----------------|------------|------------|------------|-----------|-----------|-------------|
| lb/day | 13.15 | 1.15 | 2.92 | 33.36 | 18.00 | 18.00 |
| ton/qtr | 0.22 | 0.02 | 0.05 | 0.55 | 0.30 | 0.30 |
| ton/year | 0.87 | 0.08 | 0.19 | 2.19 | 1.18 | 1.18 |

Attachment A-2 - Planned Flaring - Excess Produced Gas

Permit to Operate 13000

BreitBurn - Newlove Lease

Flare Emission Calculations

| | | Reference |
|------------------|-----------------|--------------------|
| Flare Throughput | 0.250 Masc./day | Permit Application |
| Gas Btu Content | 1,200 Btu/scf | Permit Application |
| Sulfur Content | 23 ppmv as H2S | Permit Application |

| Emission Factors | lb/MMBtu Reference |
|-------------------------|-------------------------------------|
| NOx | 0.0146 Based on 12 ppm at 3% Oxygen |
| ROC | 0.0013 Based on 3 ppm at 3% Oxygen |
| SOx | 0.0032 Mass Balance Calculation |
| CO | 0.0371 Based on 50 ppm at 3% Oxygen |
| PM | 0.0200 District |
| PM10 | 0.0200 District |

| Btu Throughput | Reference |
|------------------------|----------------------------|
| 12.500 MMBtu/hour | Daily divided by 24 hr/day |
| 300.000 MMBtu/day | Permit Application |
| 27,375.000 MMBtu/qtr | Permit Application |
| 109,500.000 MMBtu/year | Permit Application |

Emissions

| | NOx | ROC | SOx | CO | PM | PM10 |
|-----------------|------------|------------|------------|-----------|-----------|-------------|
| lb/day | 4.38 | 0.38 | 0.97 | 11.12 | 6.00 | 6.00 |
| ton/qtr | 0.20 | 0.02 | 0.04 | 0.51 | 0.27 | 0.27 |
| ton/year | 0.80 | 0.07 | 0.18 | 2.03 | 1.10 | 1.10 |

**Attachment A-3 - Pilot
 Permit to Operate 13000
 BreitBurn - Newlove Lease
 Flare Emission Calculations**

| | | Reference |
|------------------|-----------------|--------------------|
| Flare Throughput | 0.000 MMScf/day | Permit Application |
| Gas Btu Content | 1,200 Btu/scf | Permit Application |
| Sulfur Content | 23 ppmv as H2S | Permit Application |

| Emission Factors | lb/MMBtu Reference |
|-------------------------|-------------------------------------|
| NOx | 0.0146 Based on 12 ppm at 3% Oxygen |
| ROC | 0.0013 Based on 3 ppm at 3% Oxygen |
| SOx | 0.0032 Mass Balance Calculation |
| CO | 0.0371 Based on 50 ppm at 3% Oxygen |
| PM | 0.0200 District |
| PM10 | 0.0200 District |

| Btu Throughput | Reference |
|-----------------------|----------------------------|
| 0.100 MMBtu/hour | Daily divided by 24 hr/day |
| 2.400 MMBtu/day | Permit Application |
| 219.000 MMBtu/qtr | Permit Application |
| 876.000 MMBtu/year | Permit Application |

Emissions

| | NOx | ROC | SOx | CO | PM | PM10 |
|-----------------|------------|------------|------------|-----------|-----------|-------------|
| lb/day | 0.035 | 0.003 | 0.008 | 0.089 | 0.048 | 0.048 |
| ton/qtr | 0.002 | 0.000 | 0.000 | 0.004 | 0.002 | 0.002 |
| ton/year | 0.006 | 0.001 | 0.001 | 0.016 | 0.009 | 0.009 |

FUGITIVE ROC EMISSIONS CALCULATION

| ADMINISTRATIVE INFORMATION | | | | | | | | | |
|---|----------------------|---|------------------|--|-----------------------|---|--|---|--|
| Attachment: A-4 | | | | | | | | | |
| Company: BreitBurn | | | | | | | | | |
| Facility: Newlove Lease | | | | | | | | | |
| Processed by: JLM | | | | | | | | | |
| Date: 05/22/2010 | | | | | | | | | |
| Path & File Name: | | | | | | | | | |
| Facility Type: (Choose one) | | | | | | | | | |
| Production Field | x | | | | | | | | |
| Gas Processing Plant | | | | | | | | | |
| Refinery | | | | | | | | | |
| Offshore Platform | | | | | | | | | |
| Component | Count ⁽¹⁾ | ROC ⁽²⁾ Emission Factor (lbs/day-clp) | ROC/THC Ratio | Uncontrolled ROC Emission (lbs/day) | ROC Control Eff | Controlled ROC Emission (lbs/hr) | Controlled ROC Emission (lbs/day) | Controlled ROC Emission (Tons/Qty) | Controlled ROC Emission (Tons/year) |
| Gas Condensate Service | | | | | | | | | |
| Valves - Acc/Inacc | 15 | 0.295 | 0.31 | 1.37 | 0.80 | 0.01 | 0.27 | 0.01 | 0.05 |
| Valves - Bellows | | 0.295 | 0.31 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Valves - Unsafe | | 0.295 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Valves - Low Emitting | | 0.295 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Valves - E-500 | | 0.295 | 0.31 | 0.00 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| Valves - E-100 | | 0.295 | 0.31 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| Flanges - Acc/Inacc | 50 | 0.070 | 0.31 | 1.09 | 0.80 | 0.01 | 0.22 | 0.01 | 0.04 |
| Flanges - Unsafe | | 0.070 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Flanges - E-500 | | 0.070 | 0.31 | 0.00 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| Flanges - E-100 | | 0.070 | 0.31 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| Compressor Seals - To Atm | | 0.31 | 0.31 | 0.00 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 |
| Compressor Seals - To VRS | | 0.31 | 0.31 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Compressor Seals - E-500 | | 0.31 | 0.31 | 0.00 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| Compressor seals - E-100 | | 0.31 | 0.31 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| PSV - To Atm | | 0.310 | 0.31 | 0.00 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 |
| PSV - To VRS | | 0.310 | 0.31 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PSV - E-500 | | 0.310 | 0.31 | 0.00 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| PSV - E-100 | | 0.310 | 0.31 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pump Seals | | 0.31 | 0.31 | 0.00 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pump Seals - E-500 | | 0.31 | 0.31 | 0.00 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pump Seals - E-100 | | 0.310 | 0.31 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sub Total | 65 | | | 2.46 | | 0.02 | 0.49 | 0.02 | 0.09 |
| Oil Service | | | | | | | | | |
| Valves - Acc/Inacc | | 0.0041 | 0.56 | 0.00 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 |
| Valves - Unsafe | | 0.0041 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Valves - E-500 | | 0.0041 | 0.56 | 0.00 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| Valves - E-100 | | 0.0041 | 0.56 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| Flanges - Acc/Inacc | | 0.0020 | 0.56 | 0.00 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 |
| Flanges - Unsafe | | 0.0020 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Flanges - E-500 | | 0.0020 | 0.56 | 0.00 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| Flanges - E-100 | | 0.0020 | 0.56 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pump Seals - Single | | 0.56 | 0.56 | 0.00 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pump Seals - E-500 | | 0.56 | 0.56 | 0.00 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| Pump Seals - E-100 | | 0.56 | 0.56 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| PSV - To Atm | | 0.5600 | 0.56 | 0.00 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 |
| PSV - To VRS | | 0.5600 | 0.56 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| PSV - E-500 | | 0.5600 | 0.56 | 0.00 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| PSV - E-100 | | 0.5600 | 0.56 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sub Total | 0 | | | 0.000 | | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 65 | | | 2.46 | | 0.02 | 0.49 | 0.02 | 0.09 |
| Notes: | | | | | | | | | |
| 1. Source: | | | | | | | | | |
| 2. APCD P&P # 6100.060.1998. | | | | | | | | | |
| 3. APCD P&P # 6100.061.1998 | | | | | | | | | |
| 4. A 80% efficiency is assigned to fugitive components Rule 331 implementation. | | | | | | | | | |

Attachment A-5
Emission Factor Calculations

$$EF = (2.634 \times 10^{-9}) * \text{ppm} * MW * F$$

$$F = 10,051 \text{ for natural gas}$$

$$F = 10,602 \text{ for fuel oil \#2}$$

NOx 12 ppmv at 3% O2

$$MW = 46$$

$$\text{lb/MMbtu} = 0.0146$$

ROC 3 ppmv at 3% O2

$$MW = 16.04 \text{ (methane)}$$

$$\text{lb/MMbtu} = 0.0013$$

CO 50 ppmv at 3% O2

$$MW = 28$$

$$\text{lb/MMbtu} = 0.0371$$

Facility Emissions Summary
Newlove Lease FID 3321

I. This Projects "I" NEI-90

| Permit No. | Date Issued | NOx | | ROC | | CO | | SOx | | PM | | PM10 | |
|------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | lb/day | ton/yr |
| | | | | | | | | | | | | | |

II. This Facility's "P1s"

Enter all facility "P1" NEI-90s below:

| Permit No. | Date Issued | NOx | | ROC | | CO | | SOx | | PM | | PM10 | |
|---------------------|-------------|--------------|-------------|--------------|-------------|---------------|--------------|--------------|-------------|--------------|-------------|--------------|-------------|
| | | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr |
| P11909 | 05/23/06 | | | 1.50 | 0.27 | | | | | | | | |
| A12084 ₁ | 06/05/07 | 16.50 | 3.01 | 25.35 | 3.21 | 28.50 | 5.20 | 5.55 | 1.01 | 9.00 | 1.64 | 9.00 | 1.64 |
| A12084 ₂ | 06/05/07 | 33.00 | 6.02 | 26.71 | 4.23 | 57.00 | 10.40 | 11.11 | 2.03 | 18.00 | 3.29 | 18.00 | 3.29 |
| A12084-03 | 11/04/10 | -49.50 | -9.03 | -52.06 | -7.44 | -85.50 | -15.60 | -16.66 | -3.04 | -27.00 | -4.93 | -27.00 | -4.93 |
| A12084-03 | 11/04/10 | 33.00 | 6.02 | 34.22 | 5.29 | 57.00 | 10.40 | 11.11 | 2.03 | 18.00 | 3.29 | 18.00 | 3.29 |
| P12144 | 08/31/07 | | | 0.00 | 0.00 | | | | | | | | |
| P12354 | 01/10/08 | | | 0.23 | 0.04 | | | | | | | | |
| A12273 | 07/18/07 | | | 0.04 | 0.01 | | | | | | | | |
| A13000 | 07/17/09 | 17.57 | 1.67 | 2.02 | 0.24 | 44.57 | 4.24 | 3.89 | 0.37 | 24.05 | 2.29 | 24.05 | 2.29 |
| A13134 | 05/27/09 | | | 0.95 | 0.17 | | | | | | | | |
| A13140 | 12/02/09 | | | 12.28 | 2.24 | | | | | | | | |
| P13141 | 08/26/09 | | | 0.20 | 0.04 | | | | | | | | |
| A13230 | 12/29/09 | | | 7.28 | 1.33 | | | | | | | | |
| A13397 | 06/16/10 | | | 0.99 | 0.18 | | | | | | | | |
| A13513 | 11/4/2010 | | | 4.87 | 0.095 | | | | | | | | |
| Totals | | 50.57 | 7.69 | 64.58 | 9.91 | 101.57 | 14.64 | 15.00 | 2.40 | 42.05 | 5.58 | 42.05 | 5.58 |

Notes:
 (1) Facility NEI from IDS.
 (2) Totals only apply to permits for this facility ID. Totals may not appear correct due to rounding.
 (3) Because of rounding, values in this table shown as 0.00 are less than 0.005, but greater than zero.
 (4) ATC 12084 shows Phase 1 and Phase 2 NEI separately

III. This Facility's "P2" NEI-90 Decreases

Enter all facility "P2" NEI-90s below:

| Permit No. | Date Issued | NOx | | ROC | | CO | | SOx | | PM | | PM10 | |
|---------------|-------------|--------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|--------------|-------------|--------------|-------------|
| | | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr |
| A12084-01 | | | | | | | | | | | | | |
| P12084 | | | | | | | | | | | | | |
| A13000 | | 13.15 | 0.87 | 1.15 | 0.08 | 33.36 | 2.19 | 2.92 | 0.19 | 18.00 | 1.18 | 18.00 | 1.18 |
| Totals | | 13.15 | 0.87 | 1.15 | 0.08 | 33.36 | 2.19 | 2.92 | 0.19 | 18.00 | 1.18 | 18.00 | 1.18 |

Notes:
 (1) Facility NEI from IDS.
 (2) Totals only apply to permits for this facility ID. Totals may not appear correct due to rounding.
 (3) Because of rounding, values in this table shown as 0.00 are less than 0.005, but greater than zero.

IV. This Facility's Pre-90 "D" Decreases

Enter all facility "D" decreases below:

| Permit No. | Date Issued | NOx | | ROC | | CO | | SOx | | PM | | PM10 | |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | lb/day | ton/yr |
| P11909 | 05/23/06 | | | 1.50 | 0.27 | | | | | | | | |
| P12354 | 01/10/08 | | | 0.23 | 0.04 | | | | | | | | |
| P12273 | 07/17/09 | | | 0.04 | 0.01 | | | | | | | | |
| Totals | | 0.00 | 0.00 | 1.77 | 0.32 | 0.00 |

Notes:
 (1) Facility "D" from IDS.
 (2) Totals only apply to permits for this facility ID. Totals may not appear correct due to rounding.
 (3) Because of rounding, values in this table shown as 0.00 are less than 0.005, but greater than zero.

V. Calculated This Facility's NEI-90

Table below summarizes facility NEI-90 as equal to: I+ (P1-P2)-D

| Term | NOx | | ROC | | CO | | SOx | | PM | | PM10 | |
|----------------|--------------|-------------|--------------|-------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|-------------|
| | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr |
| Project "I" | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| P1 | 50.57 | 7.69 | 64.58 | 9.91 | 101.57 | 14.64 | 15.00 | 2.40 | 42.05 | 5.58 | 42.05 | 5.58 |
| P2 | 13.15 | 0.87 | 1.15 | 0.08 | 33.36 | 2.19 | 2.92 | 0.19 | 18.00 | 1.18 | 18.00 | 1.18 |
| D | 0.00 | 0.00 | 1.77 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| FNEI-90 | 37.42 | 6.82 | 61.66 | 9.51 | 68.21 | 12.45 | 12.08 | 2.21 | 24.05 | 4.40 | 24.05 | 4.40 |

Notes:
 (1) Resultant FNEI-90 from above Section I thru IV data.
 (2) Totals only apply to permits for this facility ID. Totals may not appear correct due to rounding.
 (3) Because of rounding, values in this table shown as 0.00 are less than 0.005, but greater than zero.

Stationary Source NEI-90 Calculations
 BreitBurn Energy Company LP Orcutt Hill Stationary Source

Facility FNEI-90 at this SSN

| Facility No | Facility Name | NOx | | ROC | | CO | | SOx | | PM | | PM10 | |
|---------------|---------------|--------------|-------------|---------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|-------------|
| | | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr | lb/day | ton/yr |
| 3206 | Cal Coast | 0.00 | 0.00 | 11.72 | 0.46 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3313 | Fox | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3314 | Dome | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3316 | Folsom | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3318 | Graciosa | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3319 | Hartnell | 0.00 | 0.00 | 1.25 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3320 | Hobbs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3321 | Newlove | 37.42 | 6.82 | 61.66 | 9.51 | 68.21 | 12.45 | 12.08 | 2.21 | 24.05 | 4.40 | 24.05 | 4.40 |
| 3322 | Pinal | 0.00 | 0.00 | 12.32 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3323 | Rice Ranch | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3324 | Squires | 0.00 | 0.00 | 0.85 | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3495 | Getty-Hobbs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4104 | Comp Plant | 0.00 | 0.00 | 7.17 | 1.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4214 | ICEs | 11.04 | 0.23 | 0.60 | 0.01 | 9.27 | 0.19 | 0.58 | 0.01 | 0.06 | 0.01 | 0.06 | 0.01 |
| 10482 | Steam Gens | 6.05 | 1.09 | 4.26 | 0.77 | 10.49 | 1.91 | 2.04 | 0.37 | 3.31 | 0.60 | 3.31 | 0.60 |
| 1904 | MVFF | 0.00 | 0.00 | 0.20 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Totals | | 54.51 | 8.14 | 100.03 | 12.52 | 87.97 | 14.55 | 14.70 | 2.59 | 27.42 | 5.01 | 27.42 | 5.01 |

Notes:

- (1) Facility NEI from IDS.
- (2) Totals only apply to permits for this facility ID. Totals may not appear correct due to rounding.
- (3) Because of rounding, values in this table shown as 0.00 are less than 0.005, but greater than zero.

ATTACHMENT B

IDS Tables

Table 1
Permitted Potential to Emit (PPTE)

| | NO_x | ROC | CO | SO_x | TSP | PM₁₀ |
|-----------|-----------------------|------------|-----------|-----------------------|------------|------------------------|
| PTO 13000 | | | | | | |
| lb/day | 17.57 | 2.02 | 44.57 | 3.89 | 24.05 | 24.05 |
| tons/year | 1.67 | 0.24 | 4.24 | 0.37 | 2.29 | 2.29 |

Table 2
Facility Potential to Emit (FPTE)

| | NO_x | ROC | CO | SO_x | TSP | PM₁₀ |
|-----------|-----------------------|------------|-----------|-----------------------|------------|------------------------|
| PTO 13000 | | | | | | |
| lb/day | 20.92 | 47.92 | 39.71 | 6.52 | 15.05 | 15.05 |
| tons/year | 3.81 | 7.33 | 7.25 | 1.19 | 2.75 | 2.75 |

Table 3
Facility Net Emissions Increase (FNEI)

| | NO_x | ROC | CO | SO_x | TSP | PM₁₀ |
|-----------|-----------------------|------------|-----------|-----------------------|------------|------------------------|
| PTO 13000 | | | | | | |
| lb/day | 54.51 | 100.03 | 87.97 | 14.70 | 27.42 | 27.42 |
| tons/year | 8.14 | 12.52 | 14.55 | 2.59 | 5.01 | 5.01 |

ATTACHMENT C

Fee Statement

FEE STATEMENT

PTO No. 13000

FID: 03321 Newlove Lease / SSID: 02667



**Santa Barbara County
Air Pollution Control District**

Device Fee

| Device No. | Device Name | Fee Schedule | Qty of Fee Units | Fee per Unit | Fee Units | Max or Min. Fee Apply? | Number of Same Devices | Pro Rate Factor | Device Fee | Penalty Fee? | Fee Credit | Total Fee per Device |
|--------------------------------|-------------|--------------|------------------|--------------|-------------------------|------------------------|------------------------|-----------------|-------------------|--------------|---------------|----------------------|
| 112495 | Burner | A3 | 50.000 | 461.88 | Per 1 million Btu input | Max | 1 | 1.000 | 6,180.15 | 0.00 | 0.00 | 6,180.15 |
| 112497 | Blower | A2 | 60.000 | 31.92 | Per total rated hp | No | 1 | 1.000 | 1,915.20 | 0.00 | 0.00 | 1,915.20 |
| Device Fee Sub-Totals = | | | | | | | | | \$8,095.35 | | | |
| Device Fee Total = | | | | | | | | | \$8,095.35 | | \$0.00 | \$8,095.35 |

Permit Fee

Fee Based on Devices

8,095.35

Fee Statement Grand Total = \$8,095.35

Notes:

- (1) Fee Schedule Items are listed in APCD Rule 210, Fee Schedule "A".
- (2) The term "Units" refers to the unit of measure defined in the Fee Schedule.