



PERMIT TO OPERATE 11974

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EQUIPMENT OWNER:

Cottage Health System

320000

EQUIPMENT OPERATOR:

Cottage Health System

EQUIPMENT LOCATION:

320 W. Pueblo Street, Santa Barbara

STATIONARY SOURCE/FACILITY:

Santa Barbara Cottage Hospital  
Cottage Health Care - Pueblo Street

SSID: 02020  
FID: 10723

EQUIPMENT DESCRIPTION:

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

PROJECT/PROCESS DESCRIPTION:

Operation of three steam boilers located at the new Central Plant of Cottage Hospital to provide heat to the facilities. The boilers are permitted to operate on PUC quality natural gas (primary fuel), and diesel fuel - Amber 363 as a backup fuel. This project exceeded the Rule 802 thresholds for Best Available Control Technology (BACT). BACT for these boilers included installation of low NO<sub>x</sub> burners achieving 9 ppmv NO<sub>x</sub> at 3 % O<sub>2</sub> while fired on PUC quality natural gas, and 40 ppmv NO<sub>x</sub> at 3% O<sub>2</sub> while fired on diesel fuel - Amber 363. BACT requires that the diesel backup fuel be Amber 363. Two of the boilers can operate at any one time with the third being used as a stand-by.

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CONDITIONS:

1. **Emission Limitations.** The mass emissions from the equipment permitted herein shall not exceed the values listed in Table 1 and Table 2. Compliance shall be based on the operational, monitoring, recordkeeping and reporting conditions of this permit.
  - a. BACT - Emissions from the boilers while operating on PUC quality natural gas shall not exceed the following BACT limits: 9 ppmv NO<sub>x</sub> at 3% O<sub>2</sub> and 50 ppmv CO at 3% O<sub>2</sub>. Compliance shall be based on annual source testing for NO<sub>x</sub> and CO.
  - b. BACT - Emissions from the boilers while operating on diesel fuel - Amber 363 shall not exceed the following BACT limits: 40 ppmv NO<sub>x</sub> at 3% O<sub>2</sub> and 50 ppmv CO at 3% O<sub>2</sub>.
2. **Operational Restrictions.** The equipment permitted herein is subject to the following operational restrictions:
  - a. *Heat Input Limits.* The hourly, daily and annual heat input limits to each unit shall not exceed the values listed in Table 3. These limits are based on the design rating of the unit and the annual heat input value as listed in the permit application. Unless otherwise designated by the APCD, the following fuel content shall be used for determining compliance: Natural Gas = 1,050 Btu/scf.
  - b. *Backup Fuel Limit.* Each boiler shall operate no more than 192 hours/year when fired on diesel fuel - Amber 363.
  - c. *NSR Operational Restriction.* In order to ensure that the emission offset requirements of Rule 802 are not triggered, no more than two boilers may be operated at any given time.
  - d. *Public Utility Natural Gas Fuel Sulfur Limit.* The total sulfur and hydrogen sulfide (H<sub>2</sub>S) content (calculated as H<sub>2</sub>S at standard conditions, 60°F and 14.7 psia) of the public utility natural gas fuel shall not exceed 80 ppmv and 4 ppmv respectively. Compliance with this condition shall be based on billing records or other data showing that the fuel gas is obtained from a public utility gas company.
  - e. *Diesel Fuel Sulfur Limit.* The total sulfur content of the diesel fuel - Amber 363 used shall not exceed 0.05 percent by weight. Compliance with this condition shall be based on the *Diesel Fuel Sulfur Content* condition.
3. **Monitoring.** The equipment permitted herein is subject to the following monitoring requirements:
  - a. *Fuel Usage Metering.* The volume of PUC quality natural gas (in units of standard cubic feet) and of diesel fuel - Amber 363 (in units of gallons) shall be measured through the use of dedicated APCD-approved calibrated non-resettable totalizing fuel meter for each boiler. The gas meter shall be temperature and pressure corrected. The fuel meters shall be accurate to within five percent (5%) of the full scale reading. The fuel meters shall be

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calibrated in accordance with the fuel meters manufacturer's procedures, but no later than the date of the next required emissions source test.

- b. *Compliance Determination.* The following compliance determinations are applicable to the units subject to this permit:
    - i. Units Rated at 5.0 MMBtu/hr and Greater. Except for units that are granted a Rule 342 low use exemption, source testing shall be performed in accordance with the Source Testing Condition of this permit and Rule 342. Units granted the low use exemption shall tune the unit at least once every 12 months following the tuning procedure in Attachment 1 of Rule 342 or an alternative tuning procedure approved by the APCD.
  - c. *Diesel Fuel Sulfur Content.* Compliance with the *Diesel Fuel Sulfur Limit* condition shall be based upon information provided on the diesel fuel – Amber 363 by fuel vendor analysis, or documentation for each fuel shipment that the fuel meets California Code of Regulations, Title 13, Section 2281 standards (i.e., ARB "Clean Diesel"). Alternately, the permittee shall annually sample and perform a fuel total sulfur analysis consistent with appropriate ASTM procedures.
4. **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 APCD upon request:
- a. *Fuel Use - Units Rated at 5.0 MMBtu/hr and Greater.* The volume of PUC quality natural gas used each month (in units of standard cubic feet) and the volume of diesel fuel – Amber 363 used each month (in units of gallons) in each unit. The number of days and hours in each month that each boiler operated on PUC quality natural gas and diesel fuel – Amber 363. The fuel use data shall also be summarized for each calendar year. If the APCD default Higher Heating Value is not used, maintain lab analysis records of the fuel's heating value.
  - b. *Fuel Use Meter Calibration Records.* Calibration records of APCD-approved fuel use meters.
  - c. *Source Test Reports.* Source test reports for all APCD-required stack emission tests.
  - d. *Maintenance Logs.* Maintenance logs for the unit(s) and fuel meter (as applicable).
  - e. *Diesel Fuel Analysis.* Diesel fuel vendor analysis or other documentation to demonstrate compliance with the *Diesel Fuel Sulfur Limit* and *Diesel Fuel Sulfur Content* Conditions in this permit.
5. **Reporting.** By March 1 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 APCD (Attn: *Annual Report Coordinator*). The report shall contain

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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 APCD. All logs and other basic source data not included in the report shall be made available to the APCD upon request. The report shall include the following information:

- a. *Fuel Use Data.* The fuel use data required in the Recordkeeping Condition above.
  - b. *Source Test Report.* Source test reports shall be submitted to the APCD within 45 days of test completion.
  - c. *Meter Calibration Records.* Copies of the most recent fuel use meter calibration.
  - d. *Diesel Fuel Analysis.* Diesel fuel vendor analysis or other documentation to demonstrate compliance with the *Diesel Fuel Sulfur Limit* and *Diesel Fuel Sulfur Content* Conditions in this permit.
6. **BACT.** The permittee shall apply emission control technology and plant design measures that represent Best Available Control Technology ("BACT") to the operation of the boilers as described in Table 4 and the APCD'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.
7. **Source Testing.** The following source testing provisions shall apply:
- a. Source testing shall be performed on a schedule identified in Table 4, using August as the anniversary date. The permittee shall conduct source testing of air emissions and process parameters listed in Table 5 of this permit. 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 APCD, occur.
  - b. The permittee shall submit a written source test plan to the APCD for approval at least thirty (30) days prior to initiation of each source test. The source test plan shall be prepared consistent with the APCD's Source Test Procedures Manual (revised May 1990 and any subsequent revisions). The permittee shall obtain written APCD approval of the source test plan prior to commencement of source testing. The APCD 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 APCD personnel may observe the test.
  - c. Source test results shall be submitted to the APCD 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 APCD 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 APCD Rule 210.

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- 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 APCD approval before deferring or discontinuing a scheduled test, or performing maintenance on the equipment item on the scheduled test day. If the test can not be completed on the scheduled day, then the test shall be rescheduled for another time with prior authorization by the APCD. 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 APCD. Failing to perform the source test of an equipment item on the scheduled test day without a valid reason and without APCD'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 APCD by the close of the business day following the scheduled test day.
  - e. The timelines in a., b., and c. above may be extended for good cause provided a written request is submitted to the APCD at least three (3) days in advance of the deadline, and approval for the extension is granted by the APCD.
8. **External Combustion Units--Permits Required:**
- a. An ATC/PTO permit shall be obtained prior to installation of any grouping of Rule 360 applicable boilers or hot water heaters whose combined system design heat input rating exceeds 2.000 MMBtu/hr.
  - b. An ATC permit shall be obtained prior to installation, replacement, or modification of any existing Rule 361 applicable boiler or water heater rated over 2.000 MMBtu/hr.
  - c. An ATC shall be obtained for any size boiler or water heater if the unit is not fired on natural gas or propane
9. **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 APCD's project file) and the APCD's analyses under which this permit is issued as documented in the Permit Analyses prepared for and issued with the permit.
10. **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.

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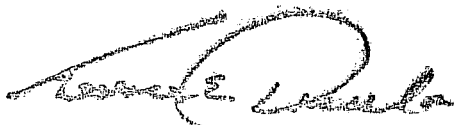
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11. **Compliance.** Nothing contained within this permit shall be construed as allowing the violation of any local, state or federal rules, regulations, air quality standards or increments.
12. **Severability.** In the event that any condition herein is determined to be invalid, all other conditions shall remain in force.
13. **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.
14. **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the APCD or its agents, the permittee shall make such records available or provide access to such facilities upon notice from the APCD. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A.
15. **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.
16. **Emission Factor Revisions.** The APCD may update the emission factors for any calculation based on USEPA AP-42 or APCD emission factors at the next permit modification or permit reevaluation to account for USEPA and/or APCD revisions to the underlying emission factors.
17. **Nuisance.** Except as otherwise provided in Section 41705 of the California H&SC, no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
18. **Grounds for Revocation.** Failure to abide by and faithfully comply with this permit or any Rule, Order, or Regulation may constitute grounds for revocation pursuant to California Health & Safety Code Section 42307 *et seq.*

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19. **Transfer of Owner/Operator.** This permit is only valid for the owner and operator listed on this permit unless a *Transfer of Owner/Operator* application has been applied for and received by the APCD. Any transfer of ownership or change in operator shall be done in a manner as specified in APCD Rule 203. APCD Form -01T and the appropriate filing fee shall be submitted to the APCD within 30 days of the transfer.



AIR POLLUTION CONTROL OFFICER

JAN 13 2009

DATE

Attachments:

- Table 1 – Mass Emission Limits
- Table 2 – Equipment Emission Factors
- Table 3 – Heat Input Limits
- Table 4 – Device Specific Requirements Summary
- Table 5 – Source Testing Requirements
- Permit Equipment List
- Table 6 – BACT Table
- Permit Evaluation for Permit to Operate 11974

Notes:

- This permit supersedes Authority to Construct 11974
- Reevaluation Due Date: December 1, 2011
- Stationary sources are subject to an annual emission fee (see Fee Schedule B-3 of Rule 210).
- Annual reports are due by March 1<sup>st</sup> of each year.

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TABLE 1. MASS EMISSION LIMITS

Device ID #	NO <sub>x</sub>		ROC		CO		SO <sub>x</sub>		PM		PM10	
	lb/day	tpy	lb/day	tpy	lb/day	tpy	lb/day	tpy	lb/day	tpy	lb/day	tpy
107856	6.35	1.16	3.17	0.58	21.82	3.98	7.57	1.38	4.38	0.80	4.38	0.80
107857	6.35	1.16	3.17	0.58	21.82	3.98	7.57	1.38	4.38	0.80	4.38	0.80
107858	6.35	1.16	3.17	0.58	21.82	3.98	7.57	1.38	4.38	0.80	4.38	0.80
<b>Total</b>	<b>12.70</b>	<b>2.32</b>	<b>6.34</b>	<b>1.16</b>	<b>43.64</b>	<b>7.97</b>	<b>15.14</b>	<b>2.76</b>	<b>8.76</b>	<b>1.60</b>	<b>8.76</b>	<b>1.60</b>

TABLE 2. EMISSION STANDARDS

Device ID #	NO <sub>x</sub>	CO	Units	Basis
107856	9	50	ppmvd @ 3% O <sub>2</sub>	BACT
107857	9	50	ppmvd @ 3% O <sub>2</sub>	BACT
107858	9	50	ppmvd @ 3% O <sub>2</sub>	BACT

TABLE 3. HEAT INPUT LIMITS

Device ID #	Fuel	MMBtu/hr	MMBtu/day	MMBtu/yr
107856	Natural Gas - Utility	24.490	587.81	214550
107857	Natural Gas - Utility	24.490	587.81	214550
107858	Natural Gas - Utility	24.490	587.81	214550
Facility Limits		48.980	1175.62	429100

TABLE 4. DEVICE SPECIFIC REQUIREMENTS SUMMARY

Device ID #	Applicable Rule	Source Testing	Tune-Ups	Fuel Use Method	Low Use Exemption	BACT
107856	R342	Annual*	None	Fuel Meter	No	Yes
107857	R342	Annual*	None	Fuel Meter	No	Yes
107858	R342	Annual*	None	Fuel Meter	No	Yes

\* Source testing shall be performed on an annual basis until two consecutive source tests demonstrate compliance with Table 6 BACT requirements, after which source testing shall be performed on a biennial (every two year) basis. If a subsequent source test shows a unit to be out of compliance, then source testing of that unit shall revert to an annual basis.

*Table Notes:*

- (a) Units subject to Rule 342 may comply with either the ppmvd or lb/MMBtu standards of the Rule.
- (b) NO<sub>x</sub> as NO<sub>2</sub>, SO<sub>x</sub> as SO<sub>2</sub>, lb/day = pounds per day, tpy = tons per year
- (c) Device ID # from permit equipment list.
- (d) Emission data that round down to 0.00 has been set to a default of 0.01.

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BOILER/EXTERNAL COMBUSTION PERMIT EQUIPMENT LIST

PTO 11974 / FID: 10723 COTTAGE HEALTH CARE - PUEBLO STREET / SSID: 02020

**A PERMITTED EQUIPMENT**

**1 BOILER 4863**

<i>Device ID #</i>	<b>107856</b>	<i>Device Name</i>	<b>Boiler 4863</b>
<i>Rated Heat Input</i>	24.490 MMBtu/Hour	<i>Operator ID</i>	B-1
<i>Manufacturer</i>	Cleaver-Brooks	<i>Serial Number</i>	OL104863
<i>Model</i>	4WI700-600-150ST		
<i>Location Note</i>			
<i>Emission Control Basis</i>	R342		
<i>Device Description</i>	One low NOx burner, fired on PUC quality natural gas or Amber 363		

**2 BOILER 4864**

<i>Device ID #</i>	<b>107857</b>	<i>Device Name</i>	<b>Boiler 4864</b>
<i>Rated Heat Input</i>	24.490 MMBtu/Hour	<i>Operator ID</i>	B-2
<i>Manufacturer</i>	Cleaver-Brooks	<i>Serial Number</i>	OL104864
<i>Model</i>	4WI700-600-150ST		
<i>Location Note</i>			
<i>Emission Control Basis</i>	R342		
<i>Device Description</i>	One low NOx burner, fired on PUC quality natural gas or Amber 363		

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**3 BOILER 4865**

<i>Device ID #</i>	<b>107858</b>	<i>Device Name</i>	<b>Boiler 4865</b>
<i>Rated Heat Input</i>	24.490 MMBtu/Hour	<i>Operator ID</i>	B-3
<i>Manufacturer</i>	Cleaver-Brooks	<i>Serial Number</i>	OL104865
<i>Model</i>	4WI700-600-150ST		
<i>Location Note</i>			
<i>Emission Control Basis</i>	R342		
<i>Device Description</i>	One low NO <sub>x</sub> burner, fired on PUC quality natural gas or Amber 363		

**TABLE 5. SOURCE TESTING REQUIREMENTS**

<b>Emission &amp; Limit Test Points</b>	<b>Pollutants</b>	<b>Parameters</b>	<b>Test Methods <sup>(a)</sup></b>
External Combustion Unit Stacks (b)(c)(d)(e)	NO <sub>x</sub> CO ROC Sampling Point Det. Stack Gas Flow Rate O <sub>2</sub> , CO <sub>2</sub> , Dry MW Moisture Content Stack Temperature	ppmv, lb/hr ppmv, lb/hr ppmv, lb/hr     °F	EPA Method 7E, ARB 100 EPA Method 10, ARB 100 EPA Method 18 EPA Method 1 EPA Method 2 or 19 EPA Method 3 EPA Method 4 Calibrated Thermocouple
Fuel Gas <sup>(h)</sup>	Fuel Gas Flow Rate Higher Heating Value Total Sulfur Content Gas Composition	Btu/lb ppmw CHONS%, F-factor	Fuel Gas Meter <sup>(i)</sup> ASTM D 1826 or 3588 ASTM D 1072 or 5504 <sup>(g)</sup> ASTM 1945

**Notes:**

- (a) Alternative methods may be acceptable on a case-by-case basis.
- (b) The emission rates shall be based on EPA Methods 2 and 4, or Method 19 along with the heat input rate.
- (c) Source testing shall be performed on an annual basis until two consecutive source tests demonstrate compliance with Table 6 BACT requirements, after which source testing shall be performed on a biennial (every two year) basis. If a subsequent source test shows a unit to be out of compliance, then source testing of that unit shall revert to an annual basis.
- (d) For NO<sub>x</sub>, CO and ROC and O<sub>2</sub> a minimum of three 40-minute runs shall be obtained during each test.
- (e) See Tables 1 and 2 for the emission standards to be measured against during the test. Measured NO<sub>x</sub> and CO shall not exceed the limit specified in the applicable Rule (e.g., Rule 361, Rule 342).
- (f) All emission determinations shall be made in the as-found operating condition, at the maximum attainable firing rate to be approved by the source test plan. 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.

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- (g) Fuel meter shall meet the calibration requirements prior to testing.
  - (h) 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.
  - (i) Fuel gas heating value and composition are optional for Rule 361 applicable units. Sulfur content only required for units not run on utility purchased gas. For units rated at 5 MMBtu/hr or greater, heating value is required in all cases, but gas composition not required if Method 2 is used for stack flow.
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**TABLE 6 - BEST AVAILABLE CONTROL TECHNOLOGY**

<b>Emission Unit/Process</b>	<b>Control Technology</b>	<b>Pollutant</b>	<b>Performance Standard</b>
Steam Boilers	Low-NO <sub>x</sub> Gas Burner	NO <sub>x</sub>	9 ppmvd at 3% O <sub>2</sub>
		CO	50 ppmvd at 3% O <sub>2</sub>
	Low-NO <sub>x</sub> Oil Burner w/Amber 363 diesel fuel	NO <sub>x</sub>	40 ppmvd at 3% O <sub>2</sub>
		CO	50 ppmvd at 3% O <sub>2</sub>

**Notes**

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- (1) Amber 363 diesel fuel operations limited to 192 hours per emergency standby use.



## PERMIT EVALUATION for PERMIT TO OPERATE 11974

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### 1.0 BACKGROUND

- 1.1 General: The boilers were installed in the new Central Plant at Santa Barbara Cottage Hospital as part of the California state required seismic upgrade and modernization project under ATC 11974. These three boilers replaced the two existing boilers which were previously permitted under PTO 9125. The existing boilers were removed from site after the installation and successful operation under SCDP of the three boilers identified in this permit. In addition, four new Tier II 2,900 bhp diesel-fired engines have been installed in the new Central Plant to provide emergency power to Cottage Hospital per ATC/PTO 11971.
- 1.2 Permit History: The following list includes the current permits for the Santa Barbara Cottage Hospital Stationary Source:

PERMIT	FINAL ISSUED	PERMIT DESCRIPTION
PTO 9125 – R6	1/09/2006	Reevaluation of two 21 MMBtu/hr boilers
PTO 9249 – R5	1/19/2006	Reevaluation of spray booth and HVLV equipment
PTO 11641	10/10/2005	Permitted a DICE ES generator at the facility on 2400 Bath Street
PTO 11642	10/10/2005	Permitted a DICE ES generator at the facility on 2400 Bath Street
PTO 11643	10/10/2005	Permitted a DICE ES generator at the facility on 2403 Castillo Street
PTO 11644	10/12/2005	Permitted three DICE ES generators at the facility on 419 W. Junipero Street
ATC/PTO 11827	3/10/2006	Permitted a temporary DICE ES generator at the existing Central Services Building for use while the new Central Plant is completed.
ATC/PTO 11971	05/16/2006	Installation of 4 Caterpillar 3516C 2000 kw emergency diesel generators.
ATC 11974	05/16/2006	Installation of 3 Cleaver-Brooks 600 hp gas/oil fired boilers.

- 1.3 Compliance/SCDP History: The following enforcement actions have been issued to the Santa Barbara Cottage Hospital Stationary Source since the last reevaluation:

VIOLATION TYPE	NUMBER	ISSUE DATE	DESCRIPTION OF VIOLATION
NOV	8372	1/25/2006	Operating the temporary DICE ES generator without a permit
NOV	8371	12/06/2005	Boiler #2 exceeded the 400 ppm CO limit during source testing on 11/30/2005.

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VIOLATION TYPE	NUMBER	ISSUE DATE	DESCRIPTION OF VIOLATION
NOV	7466	7/23/2004	Failed to submit the 2003 Annual Report by 3/1/2004.
NOV	7204	2/17/2004	Submitted the results of the annual source test for the ETO equipment, late.

The three Cleaver-Brooks boilers were source tested on August 18-19, 2008 in accordance with the SCDP and source testing conditions of ATC 11974, and were found in compliance with NO<sub>x</sub>, CO and ROC emissions limits in ATC 11974.

## 2.0 ENGINEERING ANALYSIS

2.1 Equipment/Processes: The three 24.492 MMBtu/hr steam boilers provide heat as necessary for hospital operations. The boilers are permitted to operate primarily using PUC quality natural gas with diesel fuel - Amber 363 as a backup fuel for use in emergencies. Only two boilers may be operated at any one time due to design criteria and NSR restrictions on the PTE; the third boiler is a backup to the two primary units. The boilers are required to be controlled with BACT which includes low NO<sub>x</sub> burners and diesel fuel – Amber 363 as described below.

2.2 Emission Controls: Each boiler is equipped with a Low NO<sub>x</sub> burner which can be fired on gas or diesel fuel – Amber 363. The boilers will operate with Amber 363 specific diesel fuel, during emergency events where natural gas is not available.

2.3 Emission Factors: Emission factors for the boilers are documented in Table 2 of the permit and Table 2.0 of Attachment “A”. The specific documents referenced may be found in the administrative file for this permit.

2.4 Reasonable Worst Case Emission Scenario: The operating scenario is summarized as follows:

*Hourly*: Maximum fuel rating of each boiler (24.492 MMBtu/hr), limited to two boilers

*Daily*: Operation of two boilers at the hourly rating 24 hours/day

*Annual*: Hourly rating of two boilers 8,760 hours/year (PUC quality natural gas) or 192 hours/year (diesel Amber 363 fuel)

2.5 Emission Calculations: Detailed emission calculation spreadsheets may be found in Tables A-1, A-2, 1.0, 2.0, 3.1, and 3.2 in Attachment “A” of the permit. These emissions and the reasonable worst case emission scenario define the Potential to Emit for the permitted equipment.

2.6 Special Calculations: The BACT limits for NO<sub>x</sub> and CO have been converted from units of ppmv to lb/MMBtu in order to calculate the mass emissions associated with operating the boilers. The equation used to convert the BACT limits is as follows:

$$\frac{ppmv_{BACT}}{ppmv_{Rule342}} = \frac{lb/MMBtu_{BACT}}{lb/MMBtu_{Rule342}}$$

Where:  $lb/MMBtu_{Rule\ 342 - NO_x} = 0.036\ lb/MMBtu$        $ppmv_{Rule\ 342 - NO_x} = 30\ ppmv$   
 $lb/MMBtu_{Rule\ 342 - CO} = 0.297\ lb/MMBtu$        $ppmv_{Rule\ 342 - CO} = 400\ ppmv$

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- 2.7 BACT Analyses: Best Available Control Technology was required for this project since the RACT controlled emissions from the boilers exceeded the 25 lb/day criteria pollutant threshold for BACT. The boilers must operate with a low NO<sub>x</sub> burner capable of meeting a NO<sub>x</sub> limit of 9 ppmv @ 3% O<sub>2</sub> while fired on natural gas, and 40 ppmv @ 3% O<sub>2</sub> while fired on diesel fuel – Amber 363. The boilers must also meet a CO limit of 50 ppmv @ 3% O<sub>2</sub> for either natural gas or diesel fuel – Amber 363. The complete BACT analysis is documented in ATC 11974.
- 2.8 Enforceable Operational Limits: The permit has enforceable operating conditions that ensure the control device is operated properly. The *Emission Limitations* condition restricts the NO<sub>x</sub> and CO concentrations based on BACT. These limitations are enforced via heat input limits and annual source testing required by the *Source Testing* condition of this permit.
- 2.9 Monitoring Requirements: Monitoring of the equipment's operational limits are required to ensure that these are enforceable. This includes the use of dedicated fuel meters and annual source testing of each boiler to confirm that the BACT and Rule 342 limits are not exceeded.
- 2.10 Recordkeeping and Reporting Requirements: The permit requires that the data which is monitored be recorded and reported to the APCD. This includes maintaining records of the natural gas and diesel – Amber 363 fuel used, hours each boiler is operated per day, and the number of days per month that each boiler is operated.

**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 201.	Permits Required
Rule 202.	Exemptions to Rule 201
Rule 205.	Standards for Granting Applications
Rule 206.	Conditional Approval of Authority to Construct or Permit to Operate
Rule 210.	Fees
Rule 301.	Circumvention
Rule 302.	Visible Emissions
Rule 303.	Nuisance
Rule 309.	Specific Contaminants
Rule 310.	Odorous Organic Sulfides
Rule 311.	Sulfur Content of Fuels
Rule 342	Control of Oxides of Nitrogen (NO <sub>x</sub> ) from Boilers, Steam Generators, and Process Heaters
Rule 505.	Breakdown Conditions
Rule 802.	Nonattainment Review
Rule 803.	Prevention of Significant Deterioration

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4.2 Rules Requiring Review:

4.2.1 *Rule 311 - Sulfur Content of Fuels:* Section B and Section C of this rule limit the sulfur content of liquid fuels (e.g., diesel) to no more than 0.5 percent by weight. The APCD required the use of low-sulfur diesel fuel No. 2 (Amber 363) with a sulfur content not exceeding 0.05 percent by weight in order to meet BACT requirements.

4.2.2 *Rule 802 - Nonattainment Review:* The APCD is currently designated nonattainment for the state ozone and the PM<sub>10</sub> standards. The provisions of this rule apply to ozone precursor pollutants (NO<sub>x</sub> and ROC), PM<sub>10</sub> and PM<sub>10</sub> precursor pollutants (NO<sub>x</sub>, ROC and SO<sub>x</sub>). The current project consists of permitting the operation of three new boilers at an existing source. The estimated Criteria Pollutant emissions (ROC, NO<sub>x</sub>, SO<sub>x</sub>, CO, PM<sub>10</sub>, PM) are all given in Attachment "A".

In addition to the operation of three boilers under this permit, this project includes the installation and operation of four diesel-fired stationary internal combustion engines (see ATC/PTO 11971). The project's emission increase for NO<sub>x</sub> is over 245 lb/day, which exceeded the BACT threshold of this rule (25 lb/day). BACT for the boilers requires the use of low NO<sub>x</sub> burners, and the use of Amber 363 when fired on diesel fuel. See section 2.7 and Attachment "C" for more details on the BACT analysis. The project/facility NEI has been reduced due to the removal of existing boilers and diesel-fired stationary internal combustion engines such that offsets are not required. See section 4.3 for additional details regarding the NEI.

4.2.3 *Rule 803 - Prevention of Significant Deterioration:* The APCD is currently designated attainment for the state and federal CO and SO<sub>2</sub> standards and the federal O<sub>3</sub>, NO<sub>x</sub> and PM<sub>10</sub> standards. The provisions of this rule apply to O<sub>3</sub>, NO<sub>x</sub>, CO, ROC, SO<sub>x</sub>, PM<sub>10</sub> and PM. The BACT requirements of this rule were triggered by this project.

4.2.4 *40 CFR Part 60 Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units:* On September 12, 1990, EPA promulgated Subpart Dc, a New Source Performance Standard (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units. This NSPS defines emission standards for sulfur dioxide and particulate matter from boilers rated between 10 and 100 MMBtu/hr. The emission standard for sulfur dioxide requires that when the boilers are fired on oil, that emissions not exceed 0.5 lb/MMBtu, and that the sulfur content of the oil does not exceed 0.5 percent by weight. The use of diesel fuel – Amber 363 will meet this requirement. There are no particulate matter emission standards for boiler less than 30 MMBtu/hr. Since the boilers will be operated on natural gas, and with diesel fuel – Amber 363 only in the event of an emergency, no performance test will be required as described in this subpart.

4.2.5 *40 CFR Part 63 Subpart DDDDD (Maximum Achievable Control Technology Standard for Industrial, Commercial, and Institutional Boilers and Process Heaters:* On September 13, 2004, EPA promulgated Subpart DDDDD, a National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Industrial, Commercial, and Institutional Boilers and Process Heaters. This facility is not a major source of Hazardous Air Pollutants (HAPs) and so the boilers are not subject to this MACT.

4.3 NEI Calculations: The net emission increase (NEI) calculation is used to determine whether certain requirements must be applied to a project (e.g., offsets, AQIA, PSD BACT). This permit does not contribute to the NEI and so the NEI for this permit is zero.

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The installation of these boilers under ATC 11974 did, however, contribute to the NEI of the Santa Barbara Cottage Hospital source. See Attachment "B" for the values used to determine the NEI.

**5.0 AQIA**

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

**6.0 OFFSETS/ERCs**

6.1 General: The emission offset thresholds of Regulation VIII have not been exceeded due to creditable emission decreases to the NEI term from the existing equipment being replaced as allowed per APCD rules.

6.2 Offsets: The project emissions do not exceed the offset thresholds of Rule 802 and Rule 803. Allowable creditable emission decreases to the NEI term from existing equipment being replaced, resulted in decreasing the source NEI below the offset threshold such that emission offsets are not triggered. See section 4.3 and Attachment "B" for the facility NEI.

6.3 ERCs: This source does not generate emission reduction credits.

**7.0 AIR TOXICS**

A refined Health Risk Assessment was run for this project. The results showed a cancer risk of 0.2 in a million, which is below the APCD's significant risk threshold of 10 in a million; an acute non-cancer risk of 0.1, which is below the APCD's significant risk threshold of 1.0; and, a chronic non-cancer risk of 0.02, which is below the APCD's significant risk threshold of 1.0. The refined HRA is included in the permit files. The HRA is documented in ATC 11974

**8.0 CEQA / LEAD AGENCY**

This project is exempt from CEQA pursuant to the Environmental Review Guidelines for the Santa Barbara County APCD (revised November 16, 2000). Appendix A (*APCD Projects Exempt from CEQA and Equipment or Operations Exempt from CEQA*) provides an exemption specifically for permits to operate and reevaluations thereof. 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**

10.1 This project was not subject to public notice.

10.2 The permittee had no comments on the draft permit.

**11.0 FEE DETERMINATION**

Fees for the APCD's work efforts are assessed on a fee basis. The Project Code is 320000 (*Boilers/Steam Generators/Turbines*). The detailed Fee Statement may be found in Attachment "C".

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**12.0 RECOMMENDATION**

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

\_\_\_\_\_  
David Harris  
AQ Engineer

\_\_\_\_\_  
1/9/2009  
Date

\_\_\_\_\_  
*Sam Amy*  
Engineering Supervisor

\_\_\_\_\_  
1/9/2009  
Date

ATTACHMENTS

- A Emission Calculations
- B IDS Tables (facility/source)
- C Fee Calculations

# PERMIT TO OPERATE 11974

## ATTACHMENT A

### EMISSION CALCULATIONS

Attachment: A-1

Date: 12/02/08

#### BOILER / STEAM GENERATOR CALCULATION WORKSHEET (ver. 6.0)

##### DATA

Permit No. ....	PTO 11974
Owner/Operator .....	Cottage Health Systems
Facility/Lease .....	Cottage Health Care - Pueblo Street
Boiler Type .....	Firetube
Boiler Mfg. ....	Cleaver-Brooks
Boiler Model No. ....	WI4700-600-150ST
Boiler Serial/ID No. ....	
Boiler Horsepower .....	no data Bhp
Burner Type .....	Low NOx
Burner Mfg. ....	Cleaver-Brooks
Burner Model No. ....	WI4700-600-150ST
Max. Firing Rate of Burner .....	24.492 MMBtu/hr
Max. Annual Heat Input .....	214,549.920 MMBtu/yr
Daily Operating schedule .....	24 hrs/day
Yearly Load factor (%) .....	100 %
Fuel Type .....	PUC Natural Gas
High Heating Value .....	1,050 Btu/scf
Sulfur Content of Fuel .....	80.00 ppmvd as H2S
Nitrogen Content of Fuel .....	- wt. % N
Boiler Classification .....	Industrial
Firing Type .....	Other Type
PM Emission Factor .....	0.0075 lb/MMBtu
PM <sub>10</sub> Emission Factor .....	0.0075 lb/MMBtu
NO <sub>x</sub> Emission Factor .....	0.0108 lb/MMBtu
SO <sub>x</sub> Emission Factor .....	0.0129 lb/MMBtu
CO Emission Factor .....	0.0371 lb/MMBtu
ROC Emission Factor .....	0.0054 lb/MMBtu

##### RESULTS

	<u>lb/hr</u>	<u>lb/day</u>	<u>TPY</u>
Nitrogen Oxides (as NO <sub>2</sub> ) .....	0.26	6.35	1.16
Sulfur Oxides (as SO <sub>2</sub> ) .....	0.32	7.57	1.38
PM <sub>10</sub> .....	0.18	4.38	0.80
Total Suspended Particulate (PM) .....	0.18	4.38	0.80
Carbon Monoxide .....	0.91	21.82	3.98
Reactive Organic Compounds (ROC) .....	0.13	3.17	0.58
Hourly Heat Release .....	24.492 MMBtu/hr		
Daily Heat Release.....	587.808 MMBtu/day		
Annual Heat Release .....	214,549.920 MMBtu/yr		
Rule 342 Applicability .....	214.5 Billion Btu/yr		

PERMIT TO OPERATE 11974

Attachment: A-2

Date: 12/02/08

BOILER/STEAM GENERATOR CALCULATION WORKSHEET (ver. 6.0)

DATA

Permit No. .... PTO 11974  
Owner/Operator ..... Cottage Health Systems  
Facility/Lease ..... Cottage Health Care - Pueblo Street  
Boiler Type ..... Firetube  
Boiler Mfg. .... Cleaver-Brooks  
Boiler Model No. .... W14700-600-150ST  
Boiler Serial/ID No. ....  
Boiler Horsepower ..... no data Bhp  
Burner Type ..... Low NOx  
Burner Mfg. .... Cleaver-Brooks  
Burner Model No. .... W14700-600-150ST  
Max. Firing Rate of Burner ..... 24.492 MMBtu/hr  
Max. Annual Heat Input ..... 4,702.464 MMBtu/yr  
Daily Operating schedule ..... 24 hrs/day  
Yearly Load factor (%) ..... 2.19 %  
Fuel Type ..... Amber 363 Fuel Oil  
High Heating Value ..... 140,000 Btu/gal  
Sulfur Content of Fuel ..... 0.05 wt. % S  
Nitrogen Content of Fuel ..... - wt. % N  
  
Boiler Classification ..... Industrial  
Firing Type ..... Other Type  
PM Emission Factor ..... 0.0150 lb/MMBtu  
PM<sub>10</sub> Emission Factor ..... 0.0150 lb/MMBtu  
NO<sub>x</sub> Emission Factor ..... 0.0500 lb/MMBtu  
SO<sub>x</sub> Emission Factor ..... 0.0504 lb/MMBtu  
CO Emission Factor ..... 0.0390 lb/MMBtu  
ROC Emission Factor ..... 0.0020 lb/MMBtu

RESULTS

	<u>lb/hr</u>	<u>lb/day</u>	<u>TPY</u>
Nitrogen Oxides (as NO <sub>2</sub> ) .....	1.22	29.39	0.00
Sulfur Oxides (as SO <sub>2</sub> ) .....	1.23	29.60	0.00
PM <sub>10</sub> .....	0.37	8.82	0.00
Total Suspended Particulate (PM) .....	0.37	8.82	0.00
Carbon Monoxide .....	0.96	22.92	0.00
Reactive Organic Compounds (ROC) .....	0.05	1.18	0.00
 Hourly Heat Release .....	24.492 MMBtu/hr		
Daily Heat Release.....	587.808 MMBtu/day		
Annual Heat Release .....	103.068 MMBtu/yr		
Rule 342 Applicability .....	0.1 Billion Btu/yr		

# PERMIT TO OPERATE 11974

TABLE 1.0 - EQUIPMENT DATA SHEET PTO 11974 Cottage Health Care - Pueblo Street														
APCD Device No	Device Specifications					Operating Limitations						Fuel Properties		
	Manufacturer	Model	Serial No./	Used As	Size (MMBtu/hr)	Load	On-line			Fuel Use (MMBtu)			HHV <sup>(1)</sup>	Total Sulfur
			Tag No.				(hr/day)	(hr/yr)	(hr/yr)	(per day)	(per yr)	(per yr)		
107856	Cleaver-Brooks	4W1700-600-150ST	OL104563	Steam Boiler	24,492	1	24.0	2,190	8,760	587.81	53,637	214,550	1,050 Btu/scf	80 ppmw S
107857	Cleaver-Brooks	4W1700-600-150ST	OL104564	Steam Boiler	24,492	1	24.0	2,190	8,760	587.81	53,637	214,550	1,050 Btu/scf	80 ppmw S
107858	Cleaver-Brooks	4W1700-600-150ST	OL104565	Steam Boiler	24,492	1	24.0	2,190	8,760	587.81	53,637	214,550	1,050 Btu/scf	80 ppmw S
Totals <sup>(2)</sup>										1,176	107,275	429,100		

## Notes:

- (1) The size listed here is the maximum continuous rated heat input to the boilers. This MMBtu/hr value is used to calculate permitted boiler emissions.
- (2) Totals only apply to the fuel scenario for the boilers shown in this table. Totals may not appear correct due to rounding. The total fuel use is limited to two boilers at any one time due to NSR PTE limitations.
- (3) Primary Fuel: PUC quality natural gas, Emergency-Backup Fuel: Diesel (Ambion 263)
- (4) Higher Heating Value (HHV) based on default fuel properties identified in Table 3 of the APCD RC Region Technical Agreement Document, 11-02

Secondary Fuel Operating Scenario														
APCD Device No	Device Specifications					Operating Limitations						Fuel Properties		
	Manufacturer	Model	Serial No./ Tag No.	Used As	Size (MMBtu/hr)	Load	On-line			Fuel Use (kgal)		HHV <sup>(1)</sup>	Total Sulfur	
							(hr/day)	(hr/yr)	(hr/yr)	(per day)	(per yr)			
107856	Cleaver-Brooks	4W1700-600-150ST	OL104563	Steam Boiler	24,492	1	24.0	48	192	4.20	8	34	140,000 Btu/gal	0.05 % wt S
107857	Cleaver-Brooks	4W1700-600-150ST	OL104564	Steam Boiler	24,492	1	24.0	48	192	4.20	8	34	140,000 Btu/gal	0.05 % wt S
107858	Cleaver-Brooks	4W1700-600-150ST	OL104565	Steam Boiler	24,492	1	24.0	48	192	4.20	8	34	140,000 Btu/gal	0.05 % wt S
Totals <sup>(2)</sup>										13	25	101		

APCD Device No	Device Specifications						Operating Limitations						Fuel Properties	
	Manufacturer	Model	Serial No.	Used As	Size (MMBtu/hr)	Load	On-line			Fuel Use (MMBtu)			HHV <sup>(1)</sup>	Total Sulfur
			Tag No.				(hr/day)	(hr/yr)	(hr/yr)	(per day)	(per yr)	(per yr)		
107856	Cleaver-Brooks	4W1700-600-150ST	OL104563	Steam Boiler	24,492	1	24.0	2,190	8,760	0.56	51.08	204.33	1,050 Btu/scf	0.0085 % wt S
107857	Cleaver-Brooks	4W1700-600-150ST	OL104564	Steam Boiler	24,492	1	24.0	2,190	8,760	0.56	51.08	204.33	1,050 Btu/scf	0.0085 % wt S
107858	Cleaver-Brooks	4W1700-600-150ST	OL104565	Steam Boiler	24,492	1	24.0	2,190	8,760	0.56	51.08	204.33	1,050 Btu/scf	0.0085 % wt S

TABLE 2.0 - EQUIPMENT EMISSION FACTORS  
PTO 11974  
Cottage Health Care - Pueblo Street

APCD DeviceNo	NOx	ROC	CO	SOx	PM	PM10	References
	lb/MMBtu	lb/MMBtu	lb/MMBtu	lb/MMBtu	lb/MMBtu	lb/MMBtu	
107856	0.011	0.005	0.037	0.013	0.007	0.007	AP-42 and Manufacturer Guarantee
107857	0.011	0.005	0.037	0.013	0.007	0.007	AP-42 and Manufacturer Guarantee
107858	0.011	0.005	0.037	0.013	0.007	0.007	AP-42 and Manufacturer Guarantee

## Notes:

- (1) APCD DeviceNo refers to the Boiler APCD DeviceNo in Table 1.0
- (2) NOx and CO emission factors per manufacturer guarantee
- (3) ROC and PM/PM10 emission factors per AP-42, Section 1.4, Table 1.4-2.
- (4) ROC/TOC ratio = 1.00 (ref: APCD ROC/TOC Emission Factors and Reactivities for Common Source Types (ver. 1.2))
- (5) PM10/PM mass ratio = 1.00 (ref: AP-42, Chapter 3.2 (7-00))
- (6) All emission factors are higher heating value (HHV) based.

Secondary Fuel Operating Scenario							
107856	0.050	0.002	0.039	0.050	0.015	0.015	Manufacturer Guarantee
107857	0.050	0.002	0.039	0.050	0.015	0.015	Manufacturer Guarantee
107858	0.050	0.002	0.039	0.050	0.015	0.015	Manufacturer Guarantee

## Notes:

- (1) APCD DeviceNo refers to the Boiler APCD DeviceNo in Table 1.0
- (2) NOx and CO emission factors per manufacturer guarantee
- (3) ROC and PM/PM10 emission factors per AP-42, Section 1.3, Table 1.3-3.
- (4) ROC/TOC ratio = 1.00 (ref: APCD ROC/TOC Emission Factors and Reactivities for Common Source Types (ver. 1.2))
- (5) PM10/PM mass ratio = 1.00 (ref: AP-42, Chapter 3.2 (7-00))
- (6) All emission factors are higher heating value (HHV) based.
- (7) Density of diesel fuel = 7.03 lb/gal. (ref: AP-42, Appendix A)

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**TABLE 3.1 - SHORT-TERM EMISSION LIMITATIONS <sup>(1)</sup>**

PTO 11974

Cottage Health Care - Pueblo Street

APCD DeviceNo <sup>(1)</sup>	NOx		ROC		CO		SOx		PM		PM10	
	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day
107856	0.265	6.35	0.132	3.17	0.91	21.82	0.315	7.57	0.182	4.38	0.182	4.38
107857	0.265	6.35	0.132	3.17	0.91	21.82	0.315	7.57	0.182	4.38	0.182	4.38
107858	0.265	6.35	0.132	3.17	0.91	21.82	0.315	7.57	0.182	4.38	0.182	4.38
Facility Total <sup>(2)</sup>	0.529	12.70	0.264	6.34	1.819	43.64	0.631	15.14	0.365	8.76	0.365	8.76

**Notes:**

(1) APCD DeviceNo refers to the Boiler APCD DeviceNo in Table 1.0

(2) Because of rounding, values in this table shown as 0.00 are less than 0.005, but greater than zero.

(3) The Facility Total emissions limit from the three boilers is NSR limited based on two boilers operating at any one time.

**Secondary Fuel Operating Scenario**

107856	1.225	29.39	0.049	1.18	0.96	22.92	1.233	29.60	0.367	8.82	0.367	8.82
107857	1.225	29.39	0.049	1.18	0.96	22.92	1.233	29.60	0.367	8.82	0.367	8.82
107858	1.225	29.39	0.049	1.18	0.96	22.92	1.233	29.60	0.367	8.82	0.367	8.82

**TABLE 3.2 - LONG-TERM EMISSION LIMITATIONS <sup>(1)</sup>**

PTO 11974

Cottage Health Care - Pueblo Street

APCD DeviceNo <sup>(1)</sup>	NOx		ROC		CO		SOx		PM		PM10	
	ton/qr	ton/yr	ton/qr	ton/yr	ton/qr	ton/yr	ton/qr	ton/yr	ton/qr	ton/yr	ton/qr	ton/yr
107856	0.290	1.16	0.145	0.58	0.996	3.98	0.345	1.38	0.200	0.80	0.200	0.80
107857	0.290	1.16	0.145	0.58	0.996	3.98	0.345	1.38	0.200	0.80	0.200	0.80
107858	0.290	1.16	0.145	0.58	0.996	3.98	0.345	1.38	0.200	0.80	0.200	0.80
Facility Total <sup>(2)</sup>	0.579	2.32	0.289	1.16	1.991	7.97	0.691	2.76	0.400	1.60	0.400	1.60

**Notes:**

(1) APCD DeviceNo refers to the Boiler APCD DeviceNo in Table 1.0

(2) Because of rounding, values in this table shown as 0.00 are less than 0.005, but greater than zero.

(3) The Facility Total emissions limit from the three boilers is NSR limited based on two boilers operating at any one time.

**Secondary Fuel Operating Scenario**

107856	0.029	0.12	0.001	0.0047	0.023	0.09	0.030	0.12	0.009	0.04	0.009	0.04
107857	0.029	0.12	0.001	0.0047	0.023	0.09	0.030	0.12	0.009	0.04	0.009	0.04
107858	0.029	0.12	0.001	0.0047	0.023	0.09	0.030	0.12	0.009	0.04	0.009	0.04

## ATTACHMENT B

## IDS TABLES (FACILITY/SOURCE)

TABLE B.1 - Facility Emissions Summary													
PTO 11974													
Cottage Health Care - Pueblo Street													
I. This Projects "I" NEI-90													
Permit No.	Date Issued	NO <sub>x</sub>		ROC		CO		SO <sub>x</sub>		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
II. This Facility's "P1s"													
Enter all facility "P1" NEI-90s below:													
Permit No.	Date Issued	NO <sub>x</sub>		ROC		CO		SO <sub>x</sub>		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
AP 11971	3/6/2006	233.10	1.46	15.54	0.10	134.68	0.84	9.32	0.06	7.77	0.05	7.77	0.05
ATC/PTO 11974	5/16/2006	12.70	2.32	6.34	1.16	43.64	7.97	15.14	2.76	8.76	1.60	8.76	1.60
Totals		245.80	3.77	21.88	1.25	178.32	8.81	24.46	2.82	16.53	1.65	16.53	1.65
III. This Facility's "P2" NEI-90 Decreases													
Enter all facility "P2" NEI-90s below:													
Permit No.	Date Issued	NO <sub>x</sub>		ROC		CO		SO <sub>x</sub>		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
Totals		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IV. This Facility's Pre-90 "D" Decreases													
Enter all facility "D" decreases below:													
Permit No.	Date Issued	NO <sub>x</sub>		ROC		CO		SO <sub>x</sub>		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
PTO 9125		0.17	0.03	0.03	0.01	0.11	0.02	0.02	0.00	0.04	0.01	0.04	0.01
Totals		228.28	1.54	4.54	0.03	23.19	0.16	2.79	0.02	3.10	0.02	3.10	0.02
Totals		228.45	1.57	4.58	0.04	23.30	0.17	2.81	0.02	3.14	0.03	3.14	0.03
V. Calculated This Facility's NEI-90													
Table below summarizes facility NEI-90 as equal to: I- (P1-P2) -D													
Term	NO <sub>x</sub>		ROC		CO		SO <sub>x</sub>		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"	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
P1	245.80	3.77	21.88	1.25	178.32	8.81	24.46	2.82	16.53	1.65	16.53	1.65	
P2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
D	228.45	1.57	4.58	0.04	23.30	0.17	2.81	0.02	3.14	0.03	3.14	0.03	
FNEI-90	17.35	2.20	17.30	1.22	155.03	8.63	21.65	2.80	13.39	1.62	13.39	1.62	
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.													

PERMIT TO OPERATE 11974

ATTACHMENT C

**FEE STATEMENT**

PTO No. 11974

FID: 10723 Cottage Health Care - Pueblo Street / SSID: 02020



**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
107856	Boiler 4863	A3	24.492	440.07	Per 1 million Btu input	Max	1	1.000	5,888.34	0.00	0.00	5,888.34
107857	Boiler 4864	A3	24.492	440.07	Per 1 million Btu input	Max	1	1.000	5,888.34	0.00	0.00	5,888.34
107858	Boiler 4865	A3	24.492	440.07	Per 1 million Btu input	Max	1	1.000	5,888.34	0.00	0.00	5,888.34
Device Fee Sub-Totals =									\$17,665.02	\$0.00	\$0.00	
Device Fee Total =												\$17,665.02

**Permit Fee**

Fee Based on Devices

17,665.02

**Fee Statement Grand Total = \$17,665**

**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.



**Santa Barbara County  
Air Pollution Control District**

Our Vision  Clean Air

JAN 13 2009

Certified Mail  
Return Receipt Requested

Nick Henderson  
Cottage Health System  
PO Box 689  
Santa Barbara, CA 93102-0689

FID: 10723  
Permit: P 11974  
SSID: 02020

Re: Final Permit to Operate 11974  
Fee Due: \$ 17,665

Dear Mr. Henderson:

Enclosed is the final Permit to Operate (PTO) No. 11974 for your boilers at 400-A W. Pueblo Street in Santa Barbara.

Please carefully review the enclosed documents to ensure that they accurately describe your facility and that the conditions are acceptable to you. Note that your permitted emission limits may, in the future, be used to determine emission fees.

You should become familiar with all APCD rules pertaining to your facility. This permit does not relieve you of any requirements to obtain authority or permits from other governmental agencies.

This permit requires you to:

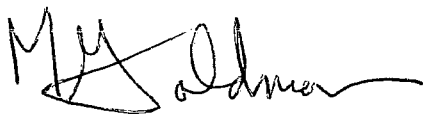
- Pay a fee of \$17,665, which is due immediately and is considered late after 30 calendar days from the date stamped on the permit. Pursuant to APCD Rule 210.IV.B, no appeal shall be heard unless all fees have been paid. See the attached invoice for more information.
- Follow the conditions listed on your permit. Pay careful attention to the recordkeeping and reporting requirements.
- Ensure that a copy of the enclosed permit is posted or kept readily available near the permitted equipment.
- Promptly report changes in ownership, operator, or your mailing address to the APCD.

If you are not satisfied with the conditions of this permit, **you have thirty (30) days from the date of this issuance to appeal this permit to the Air Pollution Control District Hearing Board** (ref: California Health and Safety Code, §42302.1). Any contact with APCD staff to discuss the terms of this permit will not stop or alter the 30-day appeal period.

**Terry Dressler • Air Pollution Control Officer**  
260 North San Antonio Road, Suite A • Santa Barbara, CA • 93110 • [www.sbapcd.org](http://www.sbapcd.org) • 805.961.8800 •  
805.961.8801 (fax)

Please include the facility identification (FID) and permit numbers as shown at the top of this letter on all correspondence regarding this permit. If you have any questions, please contact David Harris of my staff at (805) 961-8824.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Goldman", with a stylized flourish at the end.

Michael Goldman, Manager  
Engineering & Compliance Division

enc: Final PTO 11974  
Final Permit Evaluation  
Invoice # P 11974  
Air Toxics "Hot Spots" Fact Sheet APCD Form 12B

cc: Cottage Health Care - Pueblo Street 10723 Project File SC  
ECD Chron File  
Accounting (Invoice only)  
Michael D. Broughton (Cover letter only)  
David Harris (Cover letter only)  
Patty Quan-Handley, PQH-Environmental Consulting Services

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**Santa Barbara County  
Air Pollution Control District**

Post Office Box 6447  
Santa Barbara, CA 93160-6447

Invoice: P 11974  
Date: JAN 13 2009  
Terms: Net 30 Days

320000/6600

## INVOICE

BILL TO:	FACILITY:
Nick Henderson Cottage Health System (103657) PO Box 689 Santa Barbara, CA 93102-0689	Cottage Health Care - Pueblo Street 10723 400-A W. Pueblo Street Santa Barbara

Permit: Permit to Operate (PTO) No. 11974

Fee Type: Permit Evaluation Fee (see the Fee Statement in your permit for a breakdown of the fees)

**Amount Due: \$ 17,665**

**REMIT PAYMENTS TO THE ABOVE ADDRESS**

Please indicate the invoice number P 11974  
on your remittance.

IF YOU HAVE ANY QUESTIONS REGARDING YOUR INVOICE PLEASE CONTACT  
OUR ADMINISTRATION DIVISION AT (805) 961-8800

The APCD charges \$25 for returned checks. Other penalties/fees may  
be incurred as a result of returned checks and late payment (see APCD Rule 210). Failure to pay this Invoice may result in the  
cancellation or suspension of your permit. Please notify the APCD regarding any changes to the above information