

---

**Section I: LAER/BACT Determination for Application No. 272587**

**Basic Equipment or Process: Spray Booth**

**1. Basic Equipment**

1a. Manufacturer: Tellkamp Systems

1b. Type: Dry Filter

1c. Model: Not Applicable

1d. Style: 3-Bench Top and 1-Open Faced Floor Type

1e. Types(s) of Parts Coated

1f. Types of Coating/Adhesive/Solvent Used

Shock and Noise Damping Systems

Adhesive Bonding Primers Rubber-to-Metal Bonding

1g. Applicable AQMD Regulation XI Rules

1h. Cost

Rule 1124 – Aerospace Assembly and Component Manufacturing Operations

Not Known

Source of Cost Data:

**2. Basic Equipment Rating/Size – Particulate Equipment**

2a. Size/Dimension/Capacity

2b. Blowers

3-Bench Type Spray Booths each at 3'-10" W. x 5'-6" L. x 6'-0" H

1-40 H.P venting all booths

1-Floor Type Spray Booth at 7'-2" W. x 8'-0" L. x 7'-2" H.

2c. Total Flow Rate: 6000

2d. Filters

3-Booths with 4-20" x 20" Filters each

1-Booth with 12-20" x 20" Filters each

2e. Normal Operating Condition

8 hr/day, 5 day/wk

**3. Company Information**

3a. Name: Barry Controls

3b. Address: 4510 VanOwen St.

City: Burbank

State: CA

Zip: 91505

3c. Contact Person: Rex Fisher

3d. Phone No.: (818) 843-1000

**4. Permit Information**

4a. Agency

4b. Agency Contact Person

South Coast AQMD

Bill Milner

4c. Phone No: (909) 396-2553

4d. Permit to Construct Information

P/C No.: 272587

Issuance Date: 12/17/92

4e. Start-Up Date: 1993

4f. Permit to Operate Information

P/O No. D93864

Issuance Date: 10/17/95

<b>5. Emission Information</b>	
<b>5a. Permit Limit</b>	<b>5a2. <u>BACT/LAER Determination</u></b>
<b>5a1. <u>Permit Limit</u></b> VOC: 400 lb/month	The BACT/LAER determination for this application is a thermal oxidizer.
<b>5b. Control Technology</b>	
<b>5b1. <u>Manufacturer/Supplier</u></b>	
Tellkamp Systems 15520 Cornet Avenue Santa Fe Springs, CA 90670 (562) 802-1621	
<b>5b2. Description: Name of Control(s):</b>	
Thermal oxidizers operate on the basis that high temperature, proper residence time, and thorough mixing of the VOC laden air stream will thermally convert VOCs into carbon dioxide and water vapor. The regenerative variety takes advantage of the retention of heat by ceramic media in a multiple bed scheme. This system is preheated by natural gas to attain temperatures in excess of 1450 degrees Fahrenheit. Temperatures are sustained by the latent heat of combustion of the inlet VOCs. As the VOCs are destroyed in the first bed, hot combustion gases are routed to a second bed (or chamber) where heat is transferred to ceramic media contained therein. The airflow is alternated between the first chamber and the second chamber every few seconds, which acts to provide a heat recovery rate on the order of 95%. Because of the high heat recovery of such systems, operating costs are reduced because the inlet VOC stream supplies enough heat, when combusted, to sustain elevated temperatures. An hour "ramp time" (bed preheat time) is normally sufficient to achieve proper combustion temperature with the addition of VOCs at 25 ppm or more concentration. Destruction efficiencies are typically at least 97%.	
<b>5b3. <u>Control Equipment Permit Application Data</u></b>	<b>5b4. <u>Waste Air Flow to Control Equipment</u></b>
P/C No .: Not Applicable P/C Issuance Date: P/O No.: Not Applicable	Flow Rate: 6000 Actual VOC Loading: 851

P/O Issuance Date:

**5b5. Warranty**

The manufacturer guarantees the performance of the regenerative thermal oxidizer for one year.

**5b7. Secondary Pollutant**

See the discussion on Secondary Pollutants for P/C 273236 in Section I of the BACT Guidelines.

**5b9. Limitations**

See the discussion on Limitations for P/C 273236 in Section I of the BACT Guidelines.

**5b11. Operating History**

See the discussion on Limitations for P/C 273236 in Section I of the BACT Guidelines.

**5b13. Source Test Conditions/Performance Data**

The performance test results shown in Item (5b12) were based on adhesive bonding primers having VOC contents of 754, 756, and 773 grams per liter.

Inlet Blower: 1-40 H.P.

**5b6. Primary Pollutant**

See the discussion on Primary Pollutants for P/C 273236 in Section I of the BACT Guidelines.

**5b8. Space Requirement**

500 square feet

**5b10. Location of Prior Demonstration & Agency**

Facility: Unknown Contact Person: Unknown  
Phone Number: Unknown Agency: Unknown

Address: Unknown Permit Number: Unknown  
Contact Person: Unknown

**5b12. Source Test/Performance Data Analysis**

Date of Source Test: 7/2/95  
Capture Efficiency: 85.10%  
Destruction Efficiency: 97.00%  
Overall Efficiency: 82.50%

**5c. Cost**

**5c1. Control Equipment Cost**

Capital: \$175,000

Installation: Unknown

Capital + Installation: Unknown

Source of Cost Data:

**5c2. Annual Operational/Maintenance Cost**

\$25,930.00

Source of Cost Data:

**5d. Demonstration of Compliance**

**5d1. Date of Field Evaluation**

7/11/95

**5d3. Compliance Demonstration**

See the discussions on Performance Tests and Performance Test Load in Items (5b12) and

**5d2. AQMD Staff Performing Field Evaluation**

Engineer's Name: Bill Milner

Inspector's Name:

**5d4. Variance**

No. of Variances: 0

(5b13)

Causes:

**5d5. No. of Violations**

**5d6. Frequency of Maintenance**

None

Weekly by Barry Controls

Monthly by Tellkamp Systems

**6. Comment**