

November 29, 2007

**Silgan Containers Mfg. Corp.**  
2200 Wilbur Ave.  
Antioch, CA 94509

Attention: Ray McMurry

**Application Number:** 15160  
**Site Number:** B4327  
**Equipment Location:**  
Same as above

**ALAMEDA COUNTY**  
Scott Haggerty  
Janet Lockhart  
Nate Miley

Dear Mr. McMurry:

**CONTRA COSTA COUNTY**  
John Gioia  
Mark Ross  
(Chair)  
Michael Shimansky  
Gayle B. Uilkema

Enclosed is your Modified Synthetic Minor Operating Permit. This permit contains a list of the permitted equipment in the Modified Synthetic Minor Permit conditions.

All Permits should be posted in a clearly visible and accessible place on or near the equipment to be operated, or kept available for inspection at any time.

**MARIN COUNTY**  
Harold C. Brown, Jr.

Operation of this equipment in violation of District Regulations or any permit conditions is subject to penalty action.

**NAPA COUNTY**  
Brad Wagenknecht

In the absence of specific permit conditions to the contrary, equipment may be operated at its maximum potential to emit as evaluated in Application #15160. An evaluation of your permit by the District will be required before any increase is made to the potential to emit by any means, such as new equipment, new materials, new fuels, increased usage, increased throughput, etc.

**SAN FRANCISCO COUNTY**  
Chris Daly  
Jake McGoldrick  
Gavin Newsom

**SAN MATEO COUNTY**  
Jerry Hill  
(Vice-Chair)  
Carol Klatt

Please include your permit number with any correspondence with the District. If you have any questions on this matter, please call Arthur Valla, Air Quality Engineer II, at (415) 749-5184.

**SANTA CLARA COUNTY**  
Erin Garner  
Yoriko Kishimoto  
Liz Kniss  
Patrick Kwok

Very truly yours,

Jack P. Broadbent  
Executive Officer/APCO

**SOLANO COUNTY**  
John F. Silva

By \_\_\_\_\_  
Engineering Division

**SONOMA COUNTY**  
Tim Smith  
Pamela Torliatt  
(Secretary)

BFB:APV

Enclosure(s)

Jack P. Broadbent  
**EXECUTIVE  
OFFICER/APCO**

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November 29, 2007

Ms. Deborah Jordan  
Director of Air Management Division  
**United States Environmental Protection Agency**  
75 Hawthorne Street  
San Francisco, CA 94105

**ALAMEDA COUNTY**

Scott Haggerty  
Janet Lockhart  
Nate Miley

**RE: Application #15160  
Plant #B4327, Silgan Containers Mfg. Corp.**

**CONTRA COSTA COUNTY**

John Gioia  
Mark Ross  
(Chair)  
Michael Shimansky  
Gayle B. Uilkema

Dear Ms. Jordan:

The District has completed its evaluation of Silgan Containers Mfg. Corp. request for a Modified Synthetic Minor Operating Permit for its facility located in Antioch, CA. The District has made a decision to issue a Modified Synthetic Minor Operating Permit.

**MARIN COUNTY**

Harold C. Brown, Jr.

Enclosed for your information is a copy of the engineering evaluation report for this application. If you have any questions regarding this project, please call Barry Young, Air Quality Engineering Manager, at (415) 749-4721 (fax 415-749-5030).

**NAPA COUNTY**

Brad Wagenknecht

**SAN FRANCISCO COUNTY**

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Jack P. Broadbent  
**EXECUTIVE  
OFFICER/APCO**

## **Synthetic Minor Operating Permit Condition #22489**

1. The owner/operator shall ensure that this facility, subject to a Synthetic Minor Operating Permit, shall emit no more than the following quantities of emissions in any 12-month period:
  - a. 9 tons per year of any single HAP, and
  - b. 23 tons per year of any combination of HAPs

These limits shall include emissions from permitted, unpermitted, portable, and temporary sources at the facility except those sources defined as non-road engines as defined in 40 CFR 89. These limits are for the purpose of this Synthetic Minor Operating Permit only, and do not allow the owner/operator to exceed any other District permit conditions. These Synthetic Minor Operating Permit limits shall not be used as actual emissions, a permitted emission level or baseline emission level in conjunction with new source review, banking of emission reduction credits, or any other District rule. [basis: Synthetic Minor]

### **For S-1, S-2, S-3, S-4 and S-6 Coaters and Ovens**

2. The owner/operator of Sources S-1, S-1, S-3, S-4 and S-6 shall not exceed 32.9 tons of Precursor Organic Compounds (POC) and 24.015 tons of Non-Precursor Organic Compounds (NPOC) in any consecutive 12 month period. [basis: Cumulative Increase]
3. The owner/operator of Sources S-1, S-1, S-3, S-4 and S-6 shall not exceed 464,000 gallons of coatings and 11,000 gallons of solvent in any consecutive 12 month period, unless the operator of this source can demonstrate to the satisfaction of the APCO that a higher usage would not result in emissions exceeding those stipulated in Part #1 and #2. [basis: Cumulative Increase]
4. The owner/operator shall control the VOC emissions from coatings used at sources S-1, S-2, S-3, S-4 and S-6 at least 90% on a mass basis overall (capture and destruction efficiencies combined). [basis: BACT]
5. The owner/operator shall control the POC emissions from S-1, S-2, S-3, and S-4 by a Direct Flame Afterburner, A-1, during all periods of operation. [basis: BACT]  
  
The owner/operator shall control the POC and NPOC emissions from S-6 by a Thermal Oxidizer, A-2, during all periods of operation. [basis: BACT]
6. The owner/operator shall maintain the POC and/or NPOC destruction efficiency of the afterburner (A-1) and thermal oxidizer (A-2) at a minimum of 98.5%, by weight. [basis: BACT]
7. The owner/operator shall properly maintain the Afterburner, A-1, and Thermal Oxidizer, A-2, and kept them in good operating condition at all times. In no event shall the afterburner and/or thermal oxidizer temperatures (average of the three thermocouples) be less than 1450 degrees F. when S-1, S-2, S-3, S-4, and/or S-6 are in operation. The temperature shall be automatically controlled at all times during operation of S-1, S-2, S-3, S-4, and/or S-6. This minimum temperature may be adjusted by the District if source test data demonstrate that an alternate temperature is

## Synthetic Minor Operating Permit Condition #22489 (continued)

necessary for or capable of maintaining compliance with Part 6 above. [basis: BACT, Regulation 2-1-403]

8. The owner/operator shall demonstrate compliance with Part #7. The afterburner (A-1) and thermal oxidizer (A-2) shall be equipped with continuous measuring and recording instrumentation consisting of at least 3 thermocouple temperature probes in the afterburner and at least one recording device, which will continuously record the afterburner temperature as measured by each of the 3 probes. [basis: BACT]
9. The temperature limit in Part 7 shall not apply during an "Allowable Temperature Excursion", provided that the temperature controller set point complies with the temperature limit. An Allowable Temperature Excursion is one of the following:
  - a. A temperature excursion not exceeding 20 degrees F; or
  - b. A temperature excursion for a period or periods which when combined are less than or equal to 15 minutes in any hour; or
  - c. A temperature excursion for a period or periods which when combined is more than 15 minutes in any hour, provided that all three of the following criteria are met.
    - i. the excursion does not exceed 50 degrees F;
    - ii. the duration of the excursion does not exceed 24 hours; and
    - iii. the total number of such excursions does not exceed 12 per calendar year (or any consecutive 12-month period).Two or more excursions greater than 15 minutes in duration occurring during the same 24-hour period shall be counted as one excursion toward the 12 excursion limit. [basis: BACT]
10. For each Allowable Temperature Excursion that exceeds 20 degrees F. and 15 minutes in duration, the Permit Holder shall keep sufficient records to demonstrate that they meet the qualifying criteria described above. Records shall be retained for a minimum of five years from the date of entry, and shall be made available to the District upon request. Records shall include at least the following information:
  - a. Temperature controller set point;
  - b. Starting date and time, and duration of each Allowable Temperature Excursion;
  - c. Measured temperature during each Allowable Temperature Excursion;
  - d. Number of Allowable Temperature Excursions per month, and total number for the current calendar year; and
  - e. All strip charts or other temperature records.[basis: BACT]
11. For the purposes of parts 9 and 10, a temperature excursion refers only to temperatures below the limit.
12. The owner/operator shall collect the temperature data from the temperature recorders of A-1 and A-2, and shall maintain them in a file, which shall be available for District inspection for a period of at least five years following the date on which such data or reports are recorded or made. [basis: Regulation 2-6-501]

**Synthetic Minor Operating Permit Condition #22489 (continued)**

13. The owner/operator shall install enclosures over the all three coaters and ovens (S-1, S-2, S-3, S-4 and S-6) to ensure 100% capture efficiency, EPA Method 204 for Permanent Total Enclosure, when the source(s) is in operation. [Basis: BACT]
14. To demonstrate compliance, the owner/operator of sources S-1, S-2, S-3, S-4 and S-6 shall maintain the following data on a daily basis:
  - a. operating time of S-1, S-2, S-3, S-4 and S\_6.
  - b. amount and type of coating applied, by use of a daily measurement and a daily District approved log.
  - c. amount of clean-up solvent used.
  - d. a list of all products coated per day and the sheet production rate for each product (sheets/day).
  - e. film thickness requirements of product being coated.
  - f. charts from the afterburner temperature recorder.
  - g. all invoice records of coatings and solvents purchased.
  - h. thinning ratios for respective coatings being thinned.
  - i. maintain records of Material Safety Data Sheets (MSDS) or other product information identifying the POC content and individual HAP contents for each of the solvent-containing materials used at all sources
  - j. calculate monthly emissions of POC and individual HAPs from each source, based on the quantities of materials used and the chemical composition information from the associated Material Safety Data Sheets (MSDS)
  - k. calculate total POC and individual HAP emissions from the total of all sources for each month, and on a rolling 12-month basis.

Records shall be available for District inspection for a period of at least five years following the date on which such data or reports are recorded or made.  
[basis: BACT, Cumulative Increase, Synthetic minor]

15. Rail shipments/receipts from/to the permit holder shall not exceed 50,000 tons during any consecutive 12-month period. A District approved log shall be kept for all rail activity at the facility. [basis: Cumulative Increase]
16. In accordance with the provisions of Regulation 2-3-414, should the facility precursor organic compound (POC) emissions ever equal or exceed 35 tons per year, on a pollutant specific basis, the facility owner/operator shall reimburse the District with emission reduction credits for all offsets of that pollutant provided from the Small Facility Banking Account or its predecessor, the Small Facility Bank. [basis: Offsets]
17. The Owner/Operator shall prepare an annual emissions report. The report shall contain the following items for the year ending December 31:
  - a. Monthly report on each individual HAP and total individual HAP emissions for the rolling 12 month period.
  - b. Monthly report on each POC and total POC emissions for the rolling 12 month period.This report shall be submitted to the Director of Compliance and Enforcement by March 1 of each year. [basis: Synthetic Minor]

### **Synthetic Minor Operating Permit Condition #22489 (continued)**

18. The owner/operator shall report non-compliance with any of the conditions in writing to the Director of Compliance and Enforcement within 10 calendar days of discovery of non-compliance.  
[basis: Synthetic Minor]
19. The owner/operator of A-2 Thermal Oxidizer shall ensure that the nitrogen oxides (NO<sub>x</sub>) emissions from A-2, shall not exceed 50 ppmvd at 15% O<sub>2</sub> (0.20 lb/MMBtu).  
[Basis: RACT, Source Test Method 13A]
20. The owner/operator of A-2 Thermal Oxidizer shall ensure that the carbon monoxide (CO) emissions from A-2 shall not exceed 350 ppmvd at 15% O<sub>2</sub> (0.80 lb/MMBtu).  
[Basis: RACT, Source Test Method 6]
21. Within 60 days of receiving this Permit to Operate, the owner/operator of S-6 and A-2 shall conduct a District approved source test to verify compliance with Parts 6, 9, 19 and 20. The test results shall be submitted to the District within 30 days of completion of the source test. Prior to the performance of the source test, the owner/operator must submit a test protocol to the Source Test division of the Bay Area Air Quality Management District (BAAQMD) for approval. The Source Test Division and the Engineering Division of BAAQMD shall be informed in writing at least 10 days prior to the source test. [Basis: Reg. 2-1-403]

#### **For S-5 solvent tank**

22. The owner/operator shall limit the total throughput for S-5 to no more than 17,580 gallons during any consecutive 12-month period. [basis: cumulative increase]
23. The owner/operator shall only operate S-5 when abated by A-1 Thermal Oxidizer.  
[basis: cumulative increase]
24. To demonstrate compliance with the above conditions, the owner/operator shall keep the following records on site and be made available for District inspection for a period of at least five years from the date on which a record was made.
  - a. The types of organic liquids stored
  - b. The true vapor pressure of each liquid stored, and;
  - c. The quarterly throughput quantities.[basis: cumulative increase]

#### **For S-7 Water Based Coating Tank**

25. The owner/operator of S-7 shall not exceed 100,000 gallons of water based coating during any consecutive twelve-month period:  
(Basis: Cumulative Increase)
26. The owner/operator may store alternate liquid(s) other than the materials specified in Part 1 and/or usages in excess of those specified in Part 1, provided that the owner/operator can demonstrate that all of the following are satisfied:
  - a. Total POC emissions from S-7 do not exceed 31 pounds in any consecutive twelve month period;
  - b. The use of these materials does not increase toxic emissions above any risk screening trigger level of Table 2-5-1 in Regulation 2-5.

## **Synthetic Minor Operating Permit Condition #22489 (continued)**

(Basis: Cumulative Increase; Toxics)

27. To determine compliance with the above parts, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above parts, including the following information:
- a. Quantities of each type of liquid stored at this source on a monthly basis.
  - b. If a material other than those specified in Part 1 is stored, POC and toxic component contents of each material used; and mass emission calculations to demonstrate compliance with Part 2, on a monthly basis;
  - c. Monthly throughput and/or emission calculations shall be totaled for each consecutive twelve-month period.

All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations.

(Basis: Cumulative Increase; Toxics)

### **For S-8 Solvent Based Coating Tank**

28. The owner/operator of S-8 shall not exceed 100,000 gallons of solvent based coating during any consecutive twelve-month period:

(Basis: Cumulative Increase)

29. The owner/operator may store alternate liquid(s) other than the materials specified in Part 1 and/or usages in excess of those specified in Part 1, provided that the owner/operator can demonstrate that all of the following are satisfied:

- c. Total POC emissions from S-8 do not exceed 46 pounds in any consecutive twelve month period;
- d. The use of these materials does not increase toxic emissions above any risk screening trigger level of Table 2-5-1 in Regulation 2-5.

(Basis: Cumulative Increase; Toxics)

30. To determine compliance with the above parts, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above parts, including the following information:

- a. Quantities of each type of liquid stored at this source on a monthly basis.
- b. If a material other than those specified in Part 1 is stored, POC and toxic component contents of each material used; and mass emission calculations to demonstrate compliance with Part 2, on a monthly basis;
- c. Monthly throughput and/or emission calculations shall be totaled for each consecutive twelve-month period.

All records shall be retained on-site for five years, from the date of entry, and made available for inspection by District staff upon request. These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations.

(Basis: Cumulative Increase; Toxics)

**SYNTHETIC MINOR OPERATING PERMIT EVALUATION REPORT  
SILGAN CONTAINERS MFG. CORP.  
Application #15160 - Plant #14327**

**2200 Wilbur Ave.  
Antioch, CA 94509**

**BACKGROUND**

Silgan Containers cuts and coats sheet metal that is transferred to can assembly plants. The coating is what protects the metal can from the contents (e.g. tomatoes) once the can is formed and filled. The primary sources at this plant are roll coaters and drying ovens contained in the operations building. The plant also has an authority to construct for a third roll coater and two bulk coater storage tanks via application 15054.

There also is a waste tank located outdoors that stores spent cleanup solvents. Currently the waste tank is permitted through condition 10946 for 10130 gallons annually of materials with vapor pressures less than 1.0 psia. This application is for a throughput increase to 17,580 gallons/yr, including those with a higher vapor pressure, such as acetone. In order to prevent a significant increase in emissions, Silgan is proposing that S-5 be tied into and abated by existing thermal oxidizer A-1. Therefore, this application is for an Authority to Construct for:

**S-5 Spent Solvent Storage Tank, 2300 gallons, abated by A-1 Thermal Oxidizer**

The waste materials stored in the tank are 1,2,4 trimethylbenzene, butanol, butyl cellusolve, diisobutyl ketone, acetone, methyl isobutyl ketone, naphtha and Stoddard solvent.

The revision to the plants synthetic minor permit is via application 15160.

**EMISSIONS CALCULATIONS**

The applicant has provided EPA Tanks 4.0.9d emissions calculations. The current emissions are based on a 3-year average throughput from 2003 to 2005. The emissions are summarized as follows:

**Fixed Roof Storage Tank S-5 Emissions Summary**

Case	Annual Throughput (gal/yr)	Highest Vapor Pressure (psia)	Standing Losses (lb/yr)	Working Losses (lb/yr)	Total Unabated Losses (lb/yr)	A-1 Abatement Efficiency	Abated Losses
New	17,580	4.2	24.2	59.8	84.0	98.5%	1.26
Current	6,580	0.33	0.94	1.88	2.82	0.0	2.82

The emissions associated with this application are primarily NPOC acetone and insignificant (1.26 lb/yr = 0.00063 ton/yr), especially when compared to the previously permitted emissions (see Cumulative Increase, below).

## Synthetic Minor Operating Permit Engineering Evaluation

### PLANT CUMULATIVE INCREASE SINCE 4/5/91

Since the emissions are insignificant, the plant cumulative increase will remain unchanged due to this application. The following table shows the current cumulative increase from 2006 Application 15054, the last permit application for this plant.

<u>Pollutant</u>	<u>Lbs/yr</u>	<u>Tons/yr</u>
<b>POC*</b>	<b>0.00</b>	<b>0.00</b>
<b>NO<sub>x</sub></b>	<b>11,881</b>	<b>5.94</b>
<b>SO<sub>2</sub></b>	<b>34.94</b>	<b>0.0175</b>
<b>CO</b>	<b>47,524</b>	<b>23.76</b>
<b>NPOC</b>	<b>48,164</b>	<b>24.082</b>
<b>PM<sub>10</sub></b>	<b>443</b>	<b>0.221</b>

\*Databank shows the current POC emissions at 22.5 ton/yr.

### FACILITY LOCATION

According to the SCHOOL program, the closest school is 0.71 miles from the sources.

### TOXIC RISK SCREENING ANALYSIS

<b>Compound</b>	<b>Project Annual Emission Rate</b>		<b>Risk Screening Trigger Level</b>	
	<b>Lb/yr</b>	<b>Lb/hr</b>	<b>Lb/yr</b>	<b>Lb/hr</b>
1,2,4 Trimethylbenzene	1.26	0.00014	None	None
butanol	1.26	0.00014	None	None
butyl cellusolve	1.26	0.00014	770	31
diisobutyl ketone	1.26	0.00014	None	None
acetone	1.26	0.00014	None	None
methyl isobutyl ketone	1.26	0.00014	None	None
naphtha	1.26	0.00014	None	None
Stoddard solvent	1.26	0.00014	None	None

The table above is a conservative approach assuming all of the emissions are a single component. No further toxic risk assessment is required since none of the compounds listed above are emitted at rates in excess of their respective risk screening trigger levels.

### STATEMENT OF COMPLIANCE

S-5 will continue to comply with Regulation 8, Rule 5. By controlling S-5 with A-1, the requirements of regulation 8-5-301 are satisfied for all higher vapor pressure materials.

Emissions associated with this application do not exceed 10 lb/day. Therefore, BACT does not apply.

## Synthetic Minor Operating Permit Engineering Evaluation

TBACT, Offsets, PSD, NESHAPS and NSPS are not triggered.

The facility is over 1000 feet from the nearest school and therefore not subject to the public notification of Regulation 2-1-412.

### PERMIT CONDITIONS

A new condition for S-5 will be a revised condition 10946 as shown below. Once the S-5 is tied-in to A-1, the new condition will replace #10946.

COND# 10946 -----

~~Condition 10946 for S-5, Fixed Roof Tank, Plant 143273837~~  
~~Applications 13030 (1994)~~  
~~Modified by Application & 15645 (1996)~~  
~~Modified by Application 15499 (April 2007)~~

1. ~~The owner/operator shall limit the total throughput for S-5 shall not exceed to no more than 17,580+0+30~~  
gallons during any consecutive 12-month period.  
[basis: cumulative increase]
2. ~~The true vapor pressure of the bulk material stored in S 5 shall not exceed 1.0 psia.~~  
The owner/operator shall only operate S-5 when abated by A-1 Thermal Oxidizer.  
[basis: cumulative increase]
3. To demonstrate compliance with the above conditions, the following records shall be kept on site and made available for District inspection for a period of 5 years from the date on which a record was made.
  - a) The types of organic liquids stored
  - b) The true vapor pressure of each liquid stored, and;
  - c) The quarterly throughput quantities.[basis: cumulative increase]

### RECOMMENDATIONS

It is recommended that an Authority to Construct be granted to Silgan Containers for:

**S-5 Spent Solvent Storage Tank, 2300 gallons, abated by A-1 Thermal Oxidizer**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Arthur Valla April 25, 2007  
Air Quality Engineer II