

**EVALUATION REPORT
CORPORATE SIGN SYSTEMS, INC.
Application #9979 - Plant #12072**

**1521 Berger Dr.
San Jose, CA 95112**

I. BACKGROUND

Corporate Sign Systems is applying for an Authority to Construct/Permit to Operate for the following equipment:

S-1 Paint Spray Booth Operation, Golden West DB88 103, 8'2" X 7'8" X 10', HVLP Gun.

S-2 Screen Printing Operation.

Corporate Sign Systems is working mostly with pre-painted aluminum signs; however, the signs could be made of metal, or plastic or wood (rarely). The company will only paint new coating on the sign if its customer prefers different colors. The criteria pollutant involved in this application are precursor organic compounds (POC) from paint and solvent's chemicals. This pollutant is briefly discussed on the District's web site at <http://www.baaqmd.gov/dst/regulations/rg0100.pdf>

Corporate Sign is planning to use 166 gallons of mixed paints that has 2.8 pounds of volatile organic compound per gallon (lb VOC/gal) or less. The mixing ratio is three part of paint (100 gal/yr) to one part of catalyst (33 gal/yr) and one part of reducer (33 gal/yr). The solvent used at S-1 is greater than 0.42 lb VOC/gal; however, it will be dispensing from a small non-atomizing container as required by Regulation 8-19-320.2 and Regulation 8-31-320.2. All applied coatings used at this facility are in compliance with VOC limits required by Regulation 8-19-302.2 - Surface Coating of Miscellaneous Metal Parts and Products, and Regulation 8-31-302.2 - Surface Coating Plastic Parts and Products. Corporate Sign is exempt from Regulation 8-32 - Wood Products Coatings since the use of wood coating is less than 20 gallons per year per Regulation 8-32-111 - Exemption Small Coating Operations.

Source S-2 is a screen printing operation, which consumes a total of 30 gallons of ink per year water is used for cleanup. Source S-2 is exempt from the VOC requirement of Regulation 8-20 because its total emissions are less than 175 pounds per month per Regulation 8-20-110 for Small User Exemption, provided that the burden of proof requirement of Regulation 8-20-507 are met.

II. EMISSION CALCULATIONS

The POC emissions are based on the highest VOC limitation of Regulation 8-19 and Regulation 8-32. The actual VOC of coatings as applied at S-1 are less than 2.8 lb VOC/gal.

POC emissions from source S-1

- Operating hours = 8 hr/day, 6 day/wk, 52 wk/yr

Mixed Coatings (paint & catalyst & reducer) = (166 gal/yr)(2.8 lb VOC/gal) = 465 lb/yr

Cleanup solvent = (10 gal/yr)(6.7 lb VOC/gal)(98.4%) = 66 lb/yr

Annual emissions = 531 POC/yr or 0.265 ton/yr

S-1 Maximum daily POC emissions = 531 lb/yr / 52 wk/yr / 6 day/wk = 1.7 lb/highest day POC

NPOC emissions from this project (S-1)

Paint = (100 gal/yr)(9.82 lb/gal)(50%) = 491 lb/yr

Catalyst = (33 gal/yr)(10.45 lb/gal)(60%) = 207 lb/yr

Reducer = (33 gal/yr)(10.05 lb/gal)(100%) = 332 lb/yr

Solvent = (10 gal/yr)(6.7 lb/gal)(1.6 %) = 1.07 lb/yr

Annual emissions = 1031 NPOC/yr or 0.516 ton/yr

S-1 Maximum daily NPOC emissions = 1031 lb/yr / 52 wk/yr / 6 day/wk = 3.3 lb/highest day NPOC

POC emissions from this source S-2

Ink = (30 gal/yr)(6.0 lb VOC/gal) = 180 lb/yr

Maximum Daily POC emissions = 180 lb/yr / 52 wk/yr / 3 day/wk = 1.15 lb/highest day

III. PLANT CUMULATIVE INCREASE

Corporate Sign Systems currently has no POC and NPOC emissions. This project will raise the POC and NPOC to 0.356 and 0.516 tons per year, respectively.

IV. TOXIC SCREENING ANALYSIS

A "Risk Screening Analysis Questionnaire" form was not required with this application since none of the toxic cutoff levels was exceeded. The following compounds were found in the coatings.

Toxic Pollutant <u>Emitted</u>	Emission Rate <u>(lb/yr)</u>	Risk Screening <u>Trigger (lb/yr)</u>
Methyl Cellosolve Acetate	98	11,000
Toluene	17	39,000
Xylene	204	58,000
Chlorofluorocarbons	873	135,000
2-Butoxy Ethanol	115	3,900
2-Methoxyethyl Acetate	27	11,000

Although the project does not required a Health Risk Screening Analysis (HRA), the District conducted one on November 4, 2004 by the District's Toxic Evaluation Section. The source must pass the chronic hazard index of less than one for non-cancerous compounds. The hazard index is conservative. It is based on the assumption that the off-site workers and students are exposed to continuous annual average pollutant concentrations.

This paint spray booth operation and screen printing operation passed the HRA. The source poses no significant toxic risk, since the hazard indexes for the student and offsite workers are 0.002 and 0.04, respectively. Thus, in accordance with the risk management policy, the level of risk is acceptable. The District Air Toxic Risk Evaluation Procedures and Risk Management Policies can be viewed at http://www.baaqmd.gov/pmt/air_toxics/risk_procedures_policies/index.asp

V. BEST AVAILABLE CONTROL TECHNOLOGY

S-1 at this facility does not trigger BACT since the POC and NPOC emission increases from the source are below 10 pounds per highest day. S-1 is using BACT (2) for complying with Regulation 8-19. According to District Policy (Permit Services Director's memo dated February 17, 2000), only monthly record and annual emissions will be required.

S-2 at this facility S-1 from this facility does not trigger BACT since the POC emission increases from the source are below 10 pounds per highest day. According to District Policy (Permit Services Director's memo dated February 17, 2000), only monthly record and annual emissions will be required.

VI. OFFSETS

Offsets are not required since the facility's POC and NPOC emissions are much less than 15 ton/yr.

VII. STATEMENT OF COMPLIANCE

The spray booth operation (S-1) meets the requirement of Regulation 8-19-302.2 and Regulation 8-31-302, which is use of complying coating that are less than or equal to 2.8 lb VOC/gal.

The screen printing operation (S-2) is exempt from the VOC requirement of Regulation 8-20 because its total emissions are is less than 175 pounds per month per Regulation 8-20-110 for Small User Exemption.

This project is considered to be ministerial under the District's CEQA Regulation 2-1-311 and therefore is not subject to CEQA review. The engineering review for this project requires only the application of standard permit conditions and standard emission factors in accordance with Permit Handbook Chapter 5.6.

This project is within 1000 feet of the nearest school and therefore the owner/operator is subject to the public notification requirements of Reg. 2-1-412. A public notice was prepared and sent on November 5, 2004. The public notices were sent to:

All addresses within ¼ mile of the equipment.
Parents and guardians of students at Challenger School.

At the end of the comment period that lasted for more than 30 days, there were --- written comments, ---- phone messages and --- e-mail messages were received from parents of students at Challenger School.

A toxic risk screening analysis is not required, but was conducted to make sure the source does not have any significant impact on nearby residents.

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

VIII. CONDITIONS

Permit conditions for S-1, Paint Spray Booth Operation, Corporate Sign Systems, Inc., Plant # 12072, Application # 9979.

1. The owner/operator of S-1, Paint Spray Booth Operation, shall not exceed the followings:
 - a. 166 gallons of coating as applied
 - b. 10 gallons of cleanup solventin any consecutive 12 month period. (Basis: Cumulative Increase)
2. All coating as applied should be complying with Regulation 8-19-302.2 and Regulation 8-31-302. (Basis: Regulation 8-19, Regulation 8-31)

{New materials other than those specified in the permit may be used, provided that the Permit Holder can demonstrate that both of the following are satisfied:

- a. Total POC emissions do not exceed 531 pounds in any consecutive twelve month period; and
- b. Total NPOC emissions do not exceed 1031 pounds in any consecutive twelve month period; and
- c. The use of these materials does not increase the toxic emissions above any risk screening trigger level. (Basis: cumulative increase)

- 3. To demonstrate compliance with the above, plant shall maintain the following monthly records in a District-approved log:
 - a. The type of material being coated (metal, plastic, or wood), category of coatings, amount of coatings and clean-up solvent used monthly at source S-1, totalled on an annual basis
 - b. Mix ratio of components
 - c. VOC content of each coating as applied.
 All records shall be retained on site for at least two years from the date of entry, and be made available for inspection by District staff on request. (Basis: Recordkeeping)

Permit conditions for S-2, Screen Printing Operation, Corporate Sign Systems, Inc., Plant # 12072, Application # 9979.

- 1. The owner/operator of S-2, Screen Printing Operation, shall not exceed 30 gallons of ink as applied in any consecutive 12 month period. (Basis: Cumulative Increase)

{New materials other than those specified in the permit may be used, provided that the Permit Holder can demonstrate that both of the following are satisfied:

 - a. Total POC emissions do not exceed 180 pounds in any consecutive twelve month period; and
 - b. The use of these materials does not increase the toxic emissions above any risk screening trigger level. (Basis: cumulative increase)
- 2. In order to demonstrate compliance with the above conditions, the following records shall be maintained in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least two years from the date on which a record is made. (basis: Cumulative Increase; Regulation 8-20-507)
 - a. The type, VOC content, and amount of each ink used monthly.
 - b. Calculated POC emissions.
 - c. Monthly ink usage shall be totaled for each consecutive 12-month period.

IX. RECOMMENDATION

Issue permits to operate to Corporate Sign Systems, Inc. for the following equipment:

- S-1 Paint Spray Booth Operation, Golden West DB88 103, 8'2" X 7'8" X 10', HVLP Gun.**
- S-2 Screen Printing Operation.**

Thu H. Bui
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Permit Services Division

Date: _____