

DRAFT
ENGINEERING EVALUATION
XOMA (US) LLC
Plant: 12984
Application: 16568

BACKGROUND

XOMA (US) LLC has applied to modify their current permit from 45 gal/yr to 200 gal/yr of ethanol for the following equipment:

S-2
Wipe Cleaning Operations at 901 Heinz Avenue
Berkeley, CA 94710

EMISSIONS

Annual Average Emissions:

Basis:

- The current permit allows for the use of 45 gal/yr of Ster-ahol at S-2
- Per the applicant's letter dated 8/18/2007, the applicant would like to increase their use of Ster-ahol to 200 gal/yr
- Thus, the proposed increase in solvent use associated with this application is 155 gal/yr of Ster-ahol
- Solvent will be assumed to completely evaporate, and a density of 6.6 lb/gal will be used

$$\begin{aligned} \text{Solvent} &= (155 \text{ gal/yr})(6.6 \text{ lb/gal}) = 1023 \text{ lb/yr} \\ &= 0.51 \text{ ton/yr} \\ &= 2.81 \text{ lb/day (52 weeks/yr, 7 days/week)} \end{aligned}$$

TOXIC RISK SCREENING ANALYSIS

The composition of Ster-ahol is shown in Table 1. As seen in the below table, no toxic contaminants exceed the District Risk Screening Triggers and a Health Risk Screening Analysis is not required

Table 1

HAP Ingredient in Ster-ahol	% Composition	HAP Emission lb/yr	BAAQMD Toxic Trigger Level lb/yr	Above Trigger?
Ethanol	63.4	648.582	N/A	N/A
Methanol	3.2	32.74	120000	No
IPA	3.4	34.78	440000	No

PLANT CUMULATIVE INCREASE

ASML Optics LLC is an old facility. Therefore, the District's database does contain information on existing emissions at the plant. Table 2 summarizes the cumulative increase in criteria pollutant emissions that will result at Plant 12984 from the operation of S-1.

Table 2

Pollutant	Current plant emissions (TPY)	Increase in plant emissions associated with this application (TPY)	Cumulative emissions (Current + Increase) (TPY)
POC	0.6	0.51	1.11

BACT

BACT is not triggered per 2-2-301 since emissions for S-1 are less than 10 lb/day.

OFFSETS

ASML Optics, LLC is an old facility. Table 3 summarizes the increase in criteria pollutant emissions that will result at Plant 12984 from the operation of S-1.

Table 3

Pollutant	Increase in Emissions At Plant Since April 5, 1991¹ (TPY)	Increase in Emissions Associated With This Application (TPY)	Total Emissions (Post 4/5/91 + Increase) (TPY)	Regulation 2-2-302 Offset Triggers (TPY)
POC	0.6	0.51	1.11	> 10; < 35

It can be seen from Table 3 above that S-1 does not trigger any offsets. Therefore, offsets are not warranted for any emission.

STATEMENT OF COMPLIANCE

Source S-1 is subject to and expected to be in compliance with the requirements of District Regulation 8, Rule 1 and 8-16.

In order to minimize solvent losses at S-1 and S-2, the Permit Holder shall use small squeeze bottles to dispense solvent for wipe cleaning operations. In addition, all solvent impregnated cloths or papers not in active use shall be kept in closed containers. (Basis: Regulation 8, Rule 1)

The 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 May 30, 2008:

All addresses within 1000 feet of the source and
Parents and guardians of students at Ecole Bilingue de Berkeley.

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

¹ In PSDP do the following steps to get data on the aggregate sum of all increases as defined in Reg. 2-2-212 after April 5, 1991: option 1 → type of pollutant.

PERMIT CONDITIONS

COND# 19418 -----

Plant 12984
Application 4493
Sources S-1 and S-2 - Wipe Cleaning Operations

1. The owner/operator shall ensure that total solvent usage used at S-1 shall not exceed 300 gallons of "STER-AHOL" in any consecutive 12-month period. (Basis: cumulative increase)
2. The owner/operator shall ensure that total solvent usage used at S-2 shall not exceed 200 gallons of "STER-AHOL" in any consecutive 12-month period. (Basis: cumulative increase)
3. Materials other than the material specified in permit condition 1 may be used at S-1, provided the Permit Holder can demonstrate:
 - a. The Total POC and NPOC (if any) emissions from S-1 will not exceed 1322 pounds (POC + NPOC combined) in any consecutive 12-month period; and
 - b. The use of these materials does not increase emissions above risk screening trigger levels contained in Reg. 2, Rule 1, Table 2-1-316. (Basis: cumulative increase)
4. Materials other than the material specified in permit condition 2 may be used at S-2, provided the Permit Holder can demonstrate:
 - a. The Total POC and NPOC (if any) emissions from S-1 will not exceed 1322 pounds (POC + NPOC combined) in any consecutive 12-month period; and
 - b. The use of these materials does not increase emissions above risk screening trigger levels contained in Reg. 2, Rule 1, Table 2-1-316. (Basis: cumulative increase)
5. In order to minimize solvent losses at S-1 and S-2, the Permit Holder shall use small squeeze bottles to dispense solvent for wipe cleaning operations. In addition, all solvent impregnated cloths or papers not in active use shall be kept in closed containers. (Basis: Regulation 8, Rule 1)
6. To determine compliance with the above conditions, the permit holder of S-1 and S-2 shall maintain the following records and provide all data necessary to evaluate compliance with the above conditions in a District approved logbook. These records shall be kept on site, summarized on a monthly basis for each individual source, and shall be made available for District inspection for a period of 24 months from the date on which a record is made. In addition, the following information shall be maintained in the District approved logbook:
 - a. Type and monthly usage of all POC and NPOC (if any) containing materials used;
 - b. If a material other than those specified in permit condition 1 and 2 is used, POC, NPOC (if any), and chemical composition of each material used; and mass emission calculations to demonstrate compliance with permit conditions 3 and 4 on a monthly basis;
 - c. Monthly usage and/or emission calculations shall be totaled on a source specific basis for each consecutive 12-month period.

These recordkeeping requirements shall not replace the recordkeeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase, Regulation 8-16-501, Toxic Risk Screen)

End of Conditions

RECOMMENDATION

Issue XOMA (US) LLC an AC for the following equipment:

S-2
Wipe Cleaning Operations **at** **901 Heinz Avenue**
Berkeley, CA 94710

By: _____
Yue Wang
Air Quality Engineer Intern
Engineering Division

Date: _____