

**DRAFT
EVALUATION REPORT
Zygo Corporation
Plant Number: 13654
Application Number: 22548**

1. Background:

The Zygo Corporation has applied for a Change of Condition for the following:

S-1 Facility Wide Wipe Cleaning

located at: 3900 Lakeside Drive, Richmond, CA 94806.

2. Emission Calculations:

There is no chargeable cumulative increase for the equipment described in Section 1.

Basis:

- The current permit condition allows for use of 290 gal/yr of acetone and 20 gal/yr of methanol.
- According to the facility, based on current and projected 2010 operational use of solvents it will exceed the methanol limit by 30 gal/yr.
- 7 days/week and 52 weeks/yr operation

$$\begin{aligned}\text{Methanol} &= (30 \text{ gal/yr})(6.6\text{lb/gal})= 198 \text{ lb/yr} \\ &= 0.099 \text{ TPY} \\ &= 0.5425 \text{ lb/day}\end{aligned}$$

3. Plant Cumulative Increase:

Zygo Corporation is an existing facility. Therefore, the District's database contains information on current emissions at the plant. Table 1 summarizes the cumulative increase in criteria pollutant emissions that will result at Plant 13654 from the operation of the equipment described in Section 1.

Table 1

Pollutant	Current Plant Emissions (TPY)	Increase in Plant Emissions Associated with this Application (TPY)	Cumulative Emissions (Current + Increase) (TPY)
POC	0.063	0.099	0.162

4. Toxics Screening:

The equipment described in Section 1 does not emit one or more toxic air contaminants in quantities that exceed the limits listed in Table 2-5-1 of Regulation 2-5 as shown in Table 2. Hence, a risk screening is not required.

Table 2

Solvent	Emission Rate (lb/yr)	Acute Risk Level (lb/hr)	Carcinogenic Level (gal/yr)	Risk Screening Triggered?
Methanol	198	6.2E+01	1.5E+05	No

5. BACT:

BACT is not triggers per 2-2-301 since emissions for equipment described in Section 1 are less than 10 lb/day.

6. Offsets:

Methanol is a Precursor Organic Compound, but does not trigger any offsets.

7. Statement of Compliance

The equipment described in Section1 is subject to and expected to be in compliance with District requirements.

The facility is within 1,000 feet from the nearest K-12 school; therefore is subject to the public notification requirements of Regulation 2-1-412. A public notice was prepared and sent to all addresses within 1000 feet of the diesel generator set and parents and guardians of students of the following schools:

La Petite Academy
 3891 Lakeside Drive
 Richmond, CA 94806

The public comment period lasted from _____ to _____. At the end of the comment period, there was ___message(s) received.

8. Permit Condition

COND# 19146 -----

Permit Conditions
~~ASML Optics, LLC~~ Zygo Corporation
 Plant 13654
 Application 3916
 Amended 6/25/08 under application 17539
 Amended administratively 1/20/10
 Amended 10/08/10 under application 22548
 Source S-1 Wipe Cleaning Operations

1. The owner/operator of S-1, Wipe Cleaning Operations, shall ensure that use of acetone does not exceed 290 gallons during any consecutive twelve-month period.
 (basis:
 Cumulative emissions)
2. The owner-operator of S-1, Wipe Cleaning Operations,

shall ensure that use of methanol does not exceed ~~20~~ 50 gallons during any consecutive twelve-month period.

(basis:

Cumulative emissions)

3. Only acetone and methanol be shall be used at source S-1. However, if acetone and/or methanol do not perform adequately, the owner/operator of S-1 may utilize up to ~~20~~ 50 gallons of any combination of the following five alternate solvents. The usage of these alternate solvents will count towards the ~~20~~ 50 gallon methanol usage limit specified in part 2.

Toluene

Ethanol

Isopropyl alcohol

Xylene

Methyl ethyl ketone

If an alternate solvent is to be used, the owner/operator shall first apply for and receive from the District written approval for a change of conditions. (basis:

Cumulative emissions)

4. In order to demonstrate compliance with the above permit conditions, the following records shall be maintained for source S-1 in a District approved log. These records shall be kept on site and made available for District inspection for a period of at least 24 months from the date on which a record is made. (Basis: Recordkeeping 8

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16-501.3)

- a. The type solvent used.
- b. The total amount of each type of solvent used on a monthly basis.
- c. The net quantity shall be totaled on an annual basis.

9. Recommendation

Issue Zygo Corporation a Change of Permit Condition for the following equipment:

S-1 Facility Wide Wipe Cleaning

By: _____

Eddie Aquino
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