

ENGINEERING EVALUATION
Agilent Technologies
Application No. 25809
Plant No. 279

BACKGROUND

Agilent Technologies has applied for an Authority to Construct (AC) and/or Permit to Operate for the following equipment:

S-99 Above Ground Storage Tank, 2,100 gallon capacity

The equipment will be located at 1400 Fountaingrove Parkway, Santa Rosa, CA 95403.

The new waste solvent storage tank (S-99) along with the existing waste solvent storage tank (S-39) will be plumbed in tandem and will receive the same waste materials from the same site-wide processes. The desire to add a new tank is not driven by any significant increase in waste solvent generated by the facility, but by a need to gain system redundancy and reduce handling, shipping, and tank capacity risks. The site previously had two tanks until 2005, when storage tank S-38 was taken out of service. The waste materials stored in this tank will be a mixture of solvents, oils, hydraulic fluids, and water associated with the processes from the entire Agilent Technologies facility.

The storage tank is subject to attached condition no. 25710.

EMISSIONS CALCULATIONS

POC and NPOC emissions from the working and breathing losses of the storage tank were estimated using TANKS 4.09d. Since the exact contents of the storage tank at any given time vary depending on the waste streams from the facility, emission calculation were done assuming 100% acetone in the storage tank. Using the high vapor pressure of acetone will provide a conservative calculation for maximum POC and NPOC emissions. The emissions, shown in the attached calculation report, are summarized below.

	<u>Annual (lb/yr)</u>	<u>Daily (lb/day)</u>	<u>Hourly (lb/hr)</u>
Maximum emissions:	33.2	0.091	0.004

To allow for growth and alternative storage fluids, permit conditions will allow up to 100 lb/yr (0.05 ton/yr) of POC and NPOC emissions.

TOXIC RISK SCREENING ANALYSIS

The only Hazardous Air Pollutant (HAP) or Toxic Air Contaminant (TAC) expected to be stored in S-99 in a significant quantity is isopropyl alcohol (IPA). As shown in Tables 2 below, and assuming a worst case scenario that all emissions, up to 100 lb/yr, from S-99 are IPA, the TAC does not exceed the District’s Risk Screening trigger levels. Therefore, a Health Risk Screening Analysis (HRSA) is not required.

Table 2. Toxic Air Contaminant (TAC) emissions and trigger levels

HAP	Annual Emissions (lb/yr)	Chronic Trigger Levels (lb/yr)	Chronic Triggered?	Hourly Emissions (lb/hr)	Acute Trigger Levels (lb/hr)	Acute Triggered ?
IPA	100	2.70E+05	no	0.011	7.10E+00	no

PLANT CUMULATIVE EMISSIONS

S-99 located at “1412 Fountaingrove Parkway, Santa Rosa, CA 95403” is an existing facility. Table 4 summarizes the cumulative increase in criteria pollutant emissions that will result from the operation of S-99.

Table 4. Cumulative increase in tons/year

Pollutant	Existing	New	Total
NOx	1.44	0.00	1.44
POC	6.46	0.05	6.51
CO	0.52	0.00	0.52
PM10	0.14	0.00	0.14
SO ₂	0.01	0.00	0.01
NPOC	0.00	0.05	0.05

BEST AVAILABLE CONTROL TECHNOLOGY (BACT)

In accordance with Regulation 2, Rule 2, Section 301, BACT is triggered for any new or modified source with the potential to emit 10 pounds or more per highest day of POC, NPOC, NOx, CO, SO₂ or PM₁₀. Based on the emission calculations above, POC and NPOC emissions are well below 10 lb/day, and the owner/operator is not subject to BACT.

OFFSETS

Offsets must be provided for any new or modified source at a facility that emits more than 10 tons per year of POC or NOx per Regulation 2, Rule 2, Section 302. PM₁₀ and SO₂ offset requirements apply only to major facilities with a cumulative increase, minus contemporaneous emission reduction credits, in excess of 1 ton/year since April 5, 1991 per Regulation 2, Rule 2, Section 303.

According to Table 3 that summarizes the increases in criteria pollutant emissions that will result from the operation of S-99, offsets are not required because the facility will emit less than 10 tons per year of POC.

STATEMENT OF COMPLIANCE

The owner/operator of S-99 shall comply with Regulation 8-5 (*Storage of Organic Liquids*). S-99 is required to be equipped with a submerged fill pipe or a pressure vacuum valve, as required by Regulation 8-5-301 for storing organic liquids with vapor pressures that range between 1.5 and 11 psia.

This application 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 and therefore is not discretionary as defined by CEQA. (Permit Handbook Chapter 2.3.2)

Because this equipment will be located within 1,000 ft of Hidden Valley Satellite School, the project is subject to the public notification requirements of Regulation 2-1-412 due to the increase in emissions from the project. A public notice will be sent to all parents of students of the above-mentioned school and all residents within 1,000 feet of the facility. There will be a 30-day public comment period.

PSD does not apply.

PERMIT CONDITIONS

Condition No. 25710 -----

Agilent Technologies, Inc
S-99 Above Ground Storage Tank, 2,100 gallon capacity
Application 25809 (December 2013)

1. The owner/operator of S-1 shall not exceed the following throughput limits during any consecutive twelve-month period:
8,500 gallons of waste solvent
(Basis: Cumulative Increase)

2. 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-99 do not exceed 100 pounds in any consecutive twelve month period;
 - b. Total NPOC emissions from S-99 do not exceed 100 pounds in any consecutive twelve month period;
and
 - c. 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)

3. 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/NPOC 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 two 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)

End of Conditions

RECOMMENDATION

The District has reviewed the material contained in the permit application for the proposed project and has made a preliminary determination that the project is expected to comply with all applicable requirements of District, state, and federal air quality-related regulations. The preliminary recommendation is to issue an Authority to Construct for the equipment listed below. However, the proposed sources will be located within 1,000 feet of at least one school, which triggers the public notification requirements of Regulation 2-1-412.6. After the comments are received and reviewed, the District will make a final determination on the permit.

I recommend that the District initiate a public notice and consider any comments received prior to taking any final action on issuance of an Authority to Construct for the following equipment:

S-99 Above Ground Storage Tank, 2,100 gallon capacity

By: _____
Simon Margolis
Air Quality Engineer

Date: _____