

**Evaluation Report
Minor Revision to the Synthetic Minor Permit
Monaco Film Labs and Video Services
Application #13055
Plant #3370**

BACKGROUND

Monaco Laboratories operates a film lab and provides video services at its San Francisco location. The applicant operates an existing source S-5 Ultrasonic Film Cleaner that is abated by

A-1: Three (400 lb minimum capacity) activated carbon vessels arranged in parallel.

One of the applicant's contractors was nearly injured handling the heavy carbon barrels to change out the activated carbon. The applicant would like to replace this with a lighter weight setup:

Four (200 lb minimum capacity) activated carbon vessels arranged in parallel.

The plant's operating condition requires it to monitor the inlet and outlet of each carbon vessel for breakthrough to change out the carbon. It's records show that breakthrough is reached between 3 to 6 months, depending on plant activity. With the new lighter setup, breakthrough is expected to be reached in 2 to 4 months.

This facility has a synthetic minor operating permit with federally enforceable emission limits to assure that the potential to emit is below 95 tons per year of any regulated air pollutant, below 9 tons per year of any single HAP, and below 23 tons per year of any combination of HAPs. The facility emits well below 95 tons per year of any regulated air pollutant, but HAPs are the primary concern. The facility will remain in compliance with Regulation 2, Rule 6 with the modification to the A-1:

**S-5 Ultrasonic Film Cleaner, Lipsner Smith, Model CF3000-MKVI; abated by A-1
Carbon Adsorption System consisting of four US Filter 200 pound Carbon
Canisters in Parallel, 870 cfm Blower.**

The sources in the Synthetic Minor Operating Permit are:

**S-3 Immersion Printer, Petersen 4980 W, 5 gallon capacity
S-4 Immersion Printer, Scmitzer D-8420, 7 gallon capacity
S-5 Ultrasonic Film Cleaner, Lipsner Smith, Model CF3000-MKVI; abated by A-1
Carbon Adsorption System consisting of three US Filter 300 cfm VSC-400-4 400
pound Carbon Canisters in Series, 870 cfm Blower.**

Emissions calculations

There will be no emission increase as a result of the change in A-1. Breakthrough will occur more quickly, in 2 to 4 months instead of 3 to 6 months, requiring more replacements of the activated carbon.

Emission limits

Sources S-3, S-4, and S-5 are the only sources of HAPs at this facility. There are no other identified District sources. This facility does not have the potential to emit above the major facility threshold for emissions of POC, NPOC, NO_x, CO, SO₂, or PM₁₀.

HAPs:	Perchloroethylene	0.48 ton/yr
	Any other single HAP	n/a
	Any combination of HAPs	0.48 ton/yr
NPOC:	Perchloroethylene	0.48 ton/yr

Plant Cumulative Emissions

There will be no emission increase due to the modification of A-1. The potential to emit HAPs will be well under 9 tons of any HAP and 23 tons of any combination of HAPs.

BACT

The District BACT/TBACT Workbook specifies carbon adsorption as BACT/TBACT for film cleaning machines. Therefore, S-5 with A-1 Carbon Adsorption System is considered to have a BACT/TBACT level of control.

Offsets

Offsets are not required as there is no emission increase.

Toxics risk screening analysis

A Toxics Risk Screening Analysis was performed (using refined EPA ISCST3 Model) for Perchloroethylene emitted at 51 pounds per year in A/N 18602. In a memo from the Toxics Section dated 3/15/99, the analysis yielded a risk of 0.3 in a million for the maximally exposed residential receptor. The screen therefore passed.

Statement of compliance

Source S-5 complies with Regulation 8, Rule 16 - Solvent Cleaning Operations. The operating, safety and control requirements of Section 8-16-301 for vapor degreasers are met. The closed loop solvent recovery system with A-1 carbon adsorber is at least 98.5% in abatement efficiency, complying with the requirements of Regulation 8-16-301.4.

S-5 is required to comply with Regulation 8-16-304: NESHAPs for "Halogenated Solvent Cleaners" (40 CFR Part 63, Subpart T). This rule requires that S-5 meet MACT (Maximum Achievable Control Technology) consisting of a number of emissions standards as well as record keeping and reporting requirements. S-5 meets the alternative emission limit standards (63.464) for in-line solvent cleaners of less than or equal to 99 kg/m²/month (20.75 kg/m²/month – see above).

This facility will remain in compliance with the requirements of Regulation 2, Rule 6 for a synthetic minor permit. The federally enforceable permit conditions will keep Monaco's potential to emit well under 9 tons of any hazardous air pollutant and 23 tons of any combination of hazardous air pollutants.

The project is considered ministerial under the District's CEQA Regulation 2-1-311 and therefore is not subject to CEQA review.

PSD, NSPS, and offsets do not apply

Conditions

The plant removed S-1 Distiller in 2002. References to it will be deleted in this permit application. The description of A-1 incorrectly stated that the carbon canisters were connected in series (they were corrected described in Part 7), this will be corrected in this permit application.

SYNTHETIC MINOR OPERATING PERMIT

Monaco Laboratories, Inc.
234 Ninth Street
San Francisco, CA 94103
Applications #13848 and #18602
Plant #3370

Sources:

- ~~S1, Solvent Distiller, Recyclene R-2, 5 gallon capacity~~
- S3, Immersion Printer, Petersen 4980 W, 5 gallon capacity
- S4, Immersion Printer, Scmitzer D-8420, 7 gallon capacity
- S-5 Ultrasonic Film Cleaner, Lipsner Smith, Model CF3000-MKVI; abated by A-1 Carbon Adsorption System consisting of ~~four three-US Filter 300 cfm VSC-400-4-4~~ 200 pound Carbon Canisters in ~~Parallel~~ Series, 870 cfm Blower.

Monaco Laboratories, Plant #3370, has a synthetic minor operating permit. This operating permit covers all sources existing at this facility as of permit issuance. The sources are listed above.

Conditions #1-7 and 16 establish the federally enforceable permit terms that ensure this plant is classified as a Synthetic Minor Facility under District Regulation 2, Rule 6, Major Facility Review, and ensure it is not subject to the permitting requirements of Title V of the Federal Clean Air Act as amended in 1990 and 40 CFR Part 70. Any revision to a condition establishing this plant's status as a Synthetic Minor Facility or any new permit term that would limit emissions of a new or modified source for the purpose of maintaining the facility as a synthetic minor must under go the procedures specified by Rule 2-6, section 423.

Any District conditions that do not establish this facility as a synthetic minor are marked with an asterisk. There are no such conditions at this time. The facility must comply with all conditions, regardless of asterisks, and must comply with all District requirements for new and modified sources regardless of its status as a synthetic minor. This operating permit covers all sources existing at the facility as of permit issuance. The sources are listed below:

1. The owner/operator shall ~~o~~Only use perchloroethylene shall be used in S-5. (basis: Cumulative Increase, Toxic Risk Screen)
2. ~~The owner/operator shall o~~Only use perchloroethylene shall be used in S-3 and S-4. ~~Perchloroethylene may be cleaned in S-1 to allow additional use in either S-3 or S-4.~~ (basis: Cumulative Increase)
3. ~~The owner/operator shall not use more than~~ The make-up solvent usage at S-5 shall not ~~exceed~~ 3,400 pounds of perchloroethylene at S-5 during any consecutive 12 month period. (basis: Cumulative Increase, Toxic Risk Screen)
4. ~~The owner/operator shall not use more than~~ The make-up solvent usage at S-5 shall not ~~exceed~~ 1,300 pounds of perchloroethylene at S-5 during any calendar month. (basis: Cumulative Increase, Toxic Risk Screen, MACT)

5. ~~The owner/operator shall not use more than~~ The make-up solvent usage at S3 plus S4 shall not exceed 900 pounds of perchloroethylene at S-3 and S-4, combined, during any consecutive 12 month period. Solvent cleaned by S1 and returned to these sources shall not be included in this limit. (basis: Cumulative Increase)
6. ~~The owner/operator shall not use more than~~ The make-up solvent usage at S3 plus S4 shall not exceed 200 pounds of perchloroethylene at S-3 and S-4, combined during any calendar month. Solvent cleaned by S1 and returned to these sources shall not be included in this limit. (basis: Cumulative Increase)
7. The owner/operator shall vent s~~Source S-5 shall be vented~~ at all times to Abatement device A-1, four~~three~~ (4~~200~~ lb minimum capacity) activated carbon vessels arranged in parallel. Influent vapor flow shall not exceed 900 scfm. (basis: Cumulative Increase, Toxic Risk Screen, MACT)
- *8. The owner/operator shall maintain t~~The Non-Precursor Organic Compound (NPOC) capture efficiency of A-1 Carbon Adsorption System shall be maintained~~ at a minimum of 98.5% by weight. (basis: Cumulative Increase, Toxic Risk Screen, MACT)
- *9. The owner/operator of this source shall monitor with a photo-ionization detector (PID), flame-ionization detector (FID), or other method approved in writing by the Air Pollution Control Officer at the inlet and outlet of each carbon vessel.

When using an FID to monitor breakthrough, the owner/operator may take readings ~~may be taken~~ with and without a Carbon filter tip fitted on the FID probe. (basis: Cumulative Increase, Toxic Risk Screen, MACT)

- *10. The owner/operator shall record t~~These monitor readings shall be recorded~~ in a monitoring log at the time they are taken. On a daily basis, the owner/operator shall use t~~The monitoring results shall be used~~ to estimate the frequency of carbon change-out necessary to maintain compliance with Part condition number 8, and shall be conducted on a daily basis. The owner/operator of this source may propose for District review, based on actual measurements taken at the site during operation of the source, that the District change the monitoring schedule be changed based on the decline in organic emissions and/or the demonstrated breakthrough rates of the carbon vessels. The owner/operator must receive w~~ritten approval by the District's Permit Services Division must be received by the operator~~ prior to a change to the monitoring schedule. (basis: Cumulative Increase, Toxic Risk Screen, MACT)
- *11. The owner/operator shall change out each~~A Carbon vessel shall be changed-out~~ with unspent Carbon upon breakthrough, defined as the detection at its outlet of the higher of the following:
 - a. 10 % of the inlet stream concentration to the Carbon vessel.
 - b. 10 ppmv or greater (measured as C1).
 (basis: Cumulative Increase, Toxic Risk Screen, MACT)
- *12. The owner/operator of this source shall maintain the following records for each month of operation of A-1:
 - a. The hours and times of operation.
 - b. Each monitor reading or analysis result for the day of operation they are taken.

c. The number of Carbon beds removed from service.

~~All measurements, records and data required to be maintained by~~ The owner/operator shall retained and make available for inspection by the District, for at least five years following the date the data is recorded, all required measurements, records, and data. (basis: Cumulative Increase, Toxic Risk Screen, MACT)

- *13. ~~The owner/operator shall report a~~Any exceedance of ~~part condition number 8 shall be reported~~ to the District Compliance and Enforcement Division, within 30 days, with the log as well as the corrective action taken. ~~In the report, t~~The owner/operator shall ~~submit~~ detail the corrective action taken and ~~shall~~ include the data showing the exceedance as well at the time of occurrence. (basis: Cumulative Increase, Toxic Risk Screen, MACT)
- *14. In order to demonstrate compliance with ~~part condition number 8~~ the ~~permit holder~~ owner/operator shall perform a District approved source test within 30 days of start-up of S-5 and annually thereafter, in accordance with the District's Manual of Procedures. The ~~permit holder~~ owner/operator shall notify the Manager of the District's Source Test Section at least seven (7) days prior to the test, to provide the District staff the option of observing the testing. Within 45 days of test completion, the owner/operator shall submit a comprehensive report of the test results ~~shall be submitted~~ to the Manager of the District's Source Test Section for review and disposition. (basis: Regulation 2-1-403)
- *15. Prior to the commencement of construction, the owner/operator shall submit plans to the District's Source Test Division to obtain approval of the design and location of the source test ports. (basis: Regulation 1-501)
16. The owner/operator shall maintain District approved solvent usage logs ~~shall be maintained~~ that identify all the HAPs in use. The owner/operator shall ~~These logs shall include:~~
- a. Record on a daily basis the mMakeup solvent, ~~excluding solvent cleaned by S4,~~ added to S3 through S5 ~~shall be recorded on a daily basis.~~
 - b. Summarize tThe daily logs ~~shall be summarized~~ on a calendar month basis. Individual HAPs shall be summarized separately as well as the combination of HAPs.
 - c. Derive tTwelve month totals ~~shall be derived~~ every month by summing the totals for the last twelve months. The summaries shall be complete within twenty business days after the end of each month.
- The owner/operator shall retain tThese logs ~~shall be retained~~ for at least five years and shall make these logs -and be available for review during normal business hours by the District's representatives.
- (basis: Regulation 2-6-501)
- *17. The owner/operator of S-5 shall report to the District on an annual basis, the total 12 month solvent usage for the reporting period. In addition, the owner/operator of S-5 shall report any exceedance of permitted solvent usage. Also, in accordance with the federal NESHAP standard, an initial compliance report shall be submitted within 150 days of the issuance of the Permit to Operate. All reports shall be submitted to the District Compliance and Enforcement Division, attention: Synthetic Minor Reports. (basis: MACT)

by: _____ Date: _____

Eric Chan
Air Quality Engineer II