



MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

14306 Park Avenue Victorville, CA 92392-2310
760.245.1661 -- 800.635.4617 -- FAX 760.245.2022

AUTHORITY TO CONSTRUCT

C015497

If construction is not completed by the expiration date of this permit, it may be renewed for one additional year upon payment of applicable fees. Any additional extension will require the written approval of the Air Pollution Control Officer. This Authority to Construct may serve as a temporary Permit to Operate provided the APCO is given prior notice of intent to operate and the Permit to Operate is not specifically denied.

EXPIRES LAST DAY OF: OCTOBER 2026

OWNER OF OPERATOR (Co.#710)

High Tech Etch
17469 Lemon Street
Hesperia, CA 92345

EQUIPMENT LOCATION (Fac.#3576)

High Tech Etch - 17469 Lemon
17469 Lemon Street
Hesperia, CA 92345

Description:

SOLVENT VAPOR RECOVERY SYSTEM consisting of: A solvent vapor recovery system, manufactured by Baron Blakeslee Inc., Model no. CAH-6.12-DC-2T, Serial no. D78503, for perchloroethylene vapor collection and recovery, consisting of: Two (2) activated carbon beds (6' x 12' x 2.5'), containing 5,400 lbs of carbon per bed; Two (2) condenser units; One (1) separation unit; One (1) cooling tower, exempt from permitting pursuant to District Rule 219(E)(4)(c), with a nominal flow rate of 360 gallons per minute; One (1) 25 hp blower; and, One (1) modulating steam boiler, rated at 4.99 MMBtu/hr (see MDAQMD permit no. B015498).

CONDITIONS:

1. This equipment shall be installed, operated and maintained in strict accordance with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit. [District Rule 204]
2. The Flame Ionization Detector (FID), used in the quantification of perchloroethylene concentrations exhausted to atmosphere from this solvent vapor recovery system, shall be maintained, calibrated (where applicable), and operated in accordance with the manufacturer's instructions. Furthermore, this solvent vapor recovery system shall be continuously in operation while dip tank operations permitted under MDAQMD permit no. T015499 are in progress. The manufacturer's operating and maintenance manual(s) shall be maintained on site and made available to the District upon request.

Fee Schedule: 7 (h)

Rating: 1 device

SIC: 3479

SCC: 49000299

Location/UTM(Km):
473E/3812N

This permit does not authorize the emission of air contaminants in excess of those allowed by law, including Division 26 of the Health and Safety Code of the State of California and the Rules and Regulations of the District. This permit cannot be construed as permission to violate existing laws, ordinances, statutes or regulations of this or other governmental agencies. This permit must be renewed by the expiration date above. If billing for renewal fee required by Rule 301(c) is not received by expiration date above, please contact the District.

High Tech Etch
17469 Lemon Street
Hesperia, CA 92345

By: **COPY**
Brad Poiriez
Executive Director

[District Rules 1302, 1320 and 1520]

3. The activated carbon used in the adsorbers shall have a carbon tetrachloride activity number (CTC) of not less than 60% as measured by ASTM Method D3467-99 or a butane activity number of not less than 23.5% as measured by ASTM Method 5228-02. Verification of the activity number may be demonstrated via manufacturer's documentation, as required by condition 7a.

[District Rules 204, 1320 and 1520]

4. Spent carbon removed from the system shall be stored in closed containers prior to disposal and disposed in accordance with hazardous materials rules and regulations.

[District Rules 204, 1320 and 1520]

5. This solvent vapor recovery system's ductwork shall be operated under negative pressure. An audio, visual, and olfactory (AVO) inspection of the capture system shall be performed monthly to check for leaking components. The capture system shall be maintained free of holes, cracks, and other conditions that would reduce the collection efficiency of the capture system.

[District Rules 204, 1320 and 1520]

6. Planned maintenance on this solvent vapor recovery system shall only be performed during periods when dip tank operations being controlled by this system are not in operation.

[District Rule 204]

7. The owner/operator shall maintain a current operations log for this solvent vapor recovery system on-site (or at a central location) for a minimum of five (5) years, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:

- a. Manufacturer's documentation for the adsorbent media, showing the activity number as required by condition 3;
- b. Records of monthly AVO inspections of the capture system, as required in condition 5, including any corrective actions performed;
- c. Records of repairs/maintenance performed on this solvent vapor recovery system, including its capture system;
- d. Records of malfunctions, including dates and durations, a description of each malfunction, and the corrective action taken for each malfunction, as required in condition 14;
- e. Records of the calibration of all monitoring devices, as required in condition 2; and,
- f. Results of all demonstrations and testing, as required in conditions 9 and 11, demonstrating compliance with condition 8.

[District Rules 204 and 1302]

8. This solvent vapor recovery system shall achieve an Overall Control Efficiency for organic compound emissions of at least 95 percent, by weight. Overall Control Efficiency is defined as the ratio of the weight of a Regulated Air Pollutant removed by an emission control system to the total weight of that Regulated Air Pollutant emitted from a controlled Operation, both measured simultaneously. Overall Control Efficiency shall be determined by the following equation:

Overall Control Efficiency = (Capture Efficiency * Control Device Efficiency)/100

[District Rules 1302, 1320 and 1520]

9. In order to demonstrate compliance with the capture efficiency standard contained within condition 8, the owner/operator (o/o) shall conduct an initial capture efficiency demonstration of the building where the dip tank operations (permitted under MDAQMD permit no. T015499) occur and are controlled by this solvent vapor recovery system within one hundred and eighty (180) days of startup of this operation.

The testing shall be conducted while dip tank operations are in process, representative of typical process loads and flow rates. Upon District approval of the initial capture efficiency demonstration, this equipment does not require additional regularly scheduled capture efficiency testing; however, additional testing may be required at the discretion of the District. In the event the initial capture efficiency demonstration fails to meet the standard within this permit, the issue shall be corrected and a new capture efficiency demonstration shall be conducted within one hundred and eighty (180) days. Additionally, in the event of any physical or operational change made to the capture system, the o/o shall notify the District within ten (10) days of making such change and the District may require a new capture efficiency demonstration.

The owner/operator must provide a written performance test plan or protocol at least thirty days prior to the test date. The

owner/operator must conduct all required compliance/performance demonstrations in accordance with a District-approved test protocol. The owner/operator must notify the District a minimum of ten (10) days prior to the compliance/performance demonstration date so that an observer may be present. The final compliance/performance demonstration results must be submitted to the District not later than forty-five (45) days after the date of the demonstration. All compliance/performance demonstration notifications, protocols, and results may be submitted electronically to reporting@mdaqmd.ca.gov.

10. The capture efficiency of this control equipment shall be determined by meeting the design and operation requirements for a permanent total enclosure (PTE) specified in EPA Method 204, Criteria for and Verification of a Permanent or Temporary Total Enclosure, of Appendix M to 40 CFR Part 51. If a PTE does not exist, then a temporary total enclosure must be constructed and verified using EPA Method 204, and capture efficiency determination must be determined using EPA's Guidelines for Determining Capture Efficiency, January 9, 1995, and EPA Methods 204B through E of Appendix M to 40 CFR Part 51, or an alternative method demonstrated to provide results that are acceptable for the purposes of demonstrating compliance with condition 8 of this permit, subject to District review and approval.

[District Rules 1320 and 1520]

11. In order to demonstrate compliance with the control efficiency standard contained within this permit, this solvent vapor recovery system shall be source tested initially within one hundred and eighty (180) days of startup. The testing shall be conducted while dip tank operations (permitted under MDAQMD permit no. T015499) are in process, representative of typical process loads and flow rates. Subsequent performance testing, demonstrating control efficiency for perchloroethylene emissions, shall be conducted once in every twelve (12) month period thereafter. The results of this testing may be coupled with the initial capture efficiency demonstration data in order to calculate Overall Control Efficiency of this control device. Upon District approval of two (2) consecutive source tests, demonstrating compliance with the Overall Control Efficiency standard found within condition 8 of this permit, the annual frequency may be reduced upon District approval of a written request, accompanied by justification of the request. Additionally, in the event of any physical or operational change made to the control system, the o/o shall notify the District within ten (10) days of making such change and the District may require a new control efficiency test.

The owner/operator must provide a written performance test plan or protocol at least thirty days prior to the test date. The owner/operator must conduct all required compliance/performance tests in accordance with a District-approved test protocol. The owner/operator must notify the District a minimum of ten (10) days prior to the compliance/performance test date so that an observer may be present. The final compliance/performance test results must be submitted to the District not later than forty-five (45) days after the source test date. All compliance/performance test notifications, protocols, and results may be submitted electronically to reporting@mdaqmd.ca.gov.

12. The control efficiency of this solvent vapor recovery system shall be determined using:

- a. EPA Test Method 18 - Measurement of Gaseous Organic Compound Emissions by Gas Chromatography; or,
- b. EPA Test Method 25A - Determination of Total Gaseous Organic Concentration Using a Flame Ionization Using a Flame Ionization Analyzer; or,
- c. ARB Method 422 - Determination of Volatile Organic Compounds in Emissions from Stationary Sources (January 22, 1987) shall be used to determine emissions of exempt compounds; or,
- d. SCAQMD Method 303-91 - Determination of Exempt Compounds (February 1993).

[District Rules 1320 and 1520]

13. The exhaust stack for this solvent vapor recovery system shall be equipped with test ports and provisions for personnel access (e.g. scaffolding, platforms) necessary to perform source tests required to verify compliance with permit conditions. The location of these ports and provisions for access shall be subject to District approval.

[District Rule 217]

14. In the event of a malfunction of this control equipment, the dip tank operations (permitted under MDAQMD permit no. T015499) must be shut down as soon as safely possible and shall not be restarted until all malfunctions have been corrected. Equipment breakdowns shall be reported to the District in accordance with District Rule 430.

[District Rules 430]

15. The entire facility shall not emit any of the Regulated Pollutants listed below in excess of the following limits in any consecutive 12 month period to remain below the USEPA's Synthetic Minor - 80% (SM-80) threshold:

- a. Oxides of Nitrogen (NO_x): 20 tons per consecutive twelve (12) month period, measured as NO₂;

- b. Oxides of Sulfur (SO_x): 20 tons per consecutive twelve (12) month period;
- c. Volatile Organic Compounds (VOC): 20 tons per consecutive twelve (12) month period;
- d. Carbon Monoxide (CO): 80 tons per consecutive twelve (12) month period;
- e. Hydrogen Sulfide (H₂S): 8 tons per consecutive twelve (12) month period;
- f. Lead (Pb): 0.48 tons per consecutive twelve (12) month period;
- g. Particulate Matter 10 microns and less (PM₁₀): 14.5 tons per consecutive twelve (12) month period;
- h. Any single Hazardous Air Pollutant (HAP): 8 tons per consecutive twelve (12) month period; and,
- i. All HAPs combined: 20 tons per consecutive twelve (12) month period.

Compliance with these limits shall be demonstrated through the submission of a facility-wide Comprehensive Emission Inventory (CEI) for all emitted Regulated Air Pollutants. Exceedance of these emission limits may trigger offsets, BACT, National Emission Standards for Hazardous Air Pollutants (NESHAP), and/or require submission of a Title V permit application.
[District Rules 1302 and 1303]

16. A facility wide Comprehensive Emission Inventory (CEI) Plan and Report for all emitted criteria and toxic air pollutants must be submitted to the District, in a format approved by the District, upon District request.
[District Rule 107(b); H&S Code 39607 & 44341-44342; 17 CCR 93400 et seq.; and 40 CFR 51, Subpart A]