



Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

**BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator	Aerospace Testing Lab., Inc.
Address	P.O. Box 612, South Windsor, CT 06074-0612
Equipment Location	32 South Satellite Road, South Windsor, CT 06074
Equipment Description	Batch Vapor Degreaser
Town-Permit Numbers	169-0100
Premises Number	110
Stack Number	2
Permit Issue Date	
Expiration Date	None

Betsey C. Wingfield
Deputy Commissioner

Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. DESIGN SPECIFICATIONS

A. General Description

Aerospace Testing Lab., Inc. (ATL) performs testing of aerospace components. A batch vapor degreaser is used to clean aerospace parts by condensing heated trichloroethylene (TCE) solvent. VOC emissions control mechanism involves a refrigerated chiller, primary and secondary condensers as well as work practice standards. ATL operates the degreaser in accordance with the requirements in RCOSA §22a-174-20(l)(4) and 40 CFR Part 63 Subpart T.

B. Equipment Design Specifications

1. Type of Solvent Cleaning Machine: Open Top Vapor (Batch)
2. Solvent Recovery Still: Yes No
3. Solvent/Air Interface Area (ft²): 14.75
4. Hourly Solvent(s) Consumption (lb/hr): 4.70
5. This Solvent Cleaning Machine shall have:
 - a. An idling and downtime mode cover that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects.
 - b. A Freeboard Ratio of 1.0 or greater.
 - c. An automated parts handling system capable of moving parts or parts baskets at a speed 11 feet per minute or less from the initial loading of parts through removal of cleaned parts.
 - d. A safety switch to shut off sump heat if the sump liquid solvent level drops to the sump heater coils.
 - e. A vapor level control thermostat to shut off the sump heat if the vapor level rises above the height of the primary condenser.
 - f. A primary condenser.
 - g. This vapor degreaser shall be equipped with a condenser flow switch and thermostat to shut off sump heat if the condenser coolant is not circulating or too warm.
 - h. This vapor degreaser shall be equipped with a spray safety switch which shuts off the spray pump if the vapor level drops more than 10 centimeters (4 inches) below the lowest condensing coil.

C. Control Equipment Design Specifications

1. Powered Cover and Idling Mode Cover
2. Primary and Secondary Condensers
3. Freeboard Refrigerated Chiller
4. Freeboard Ratio of greater than 1.0

5. Low Liquid and High Vapor Level Safety Switches

[RCSA §22a-174-20(l)(4) and 40 CFR §63.463(b)(2)(i), Table 2, Option 6]

PART II. OPERATIONAL CONDITIONS

A. Equipment

1. Allowable Solvent: Trichloroethylene (TCE)
2. Maximum Solvent Emitted Rate (lb/12 consecutive months): 13,442

Solvent Consumption means the amount of solvent added to the solvent cleaning machine during the measurement period plus any differential in the solvent contained in the reservoir at the beginning and ending of the measurement period.

Solvent Removed means the amount of solvent removed from the solvent cleaning machine less contaminants during the measurement period.

Solvent Emitted means Solvent Consumption less Solvent Removed during the measurement period.

B. Control Equipment

1. Freeboard Refrigerated Chiller
2. Maximum Temperature at Center of Air Blanket (°F): 56.7

[RCSA §22a-174-20(l)(4); 40 CFR §63.463(b)(2)(i), Table 2, Option 6]

C. Work Practices

1. The cover of the solvent cleaning machine shall be in place during the idling mode, and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover to not be in place. [40 CFR §63.463(d)(1)(i)]
2. The parts baskets or the parts being cleaned in an open-top batch vapor cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less. [40 CFR §63.463(d)(2)]
3. Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine). [40 CFR §63.463(d)(3)]
4. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed. [40 CFR §63.463(d)(4)]
5. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped. [40 CFR §63.463(d)(5)]
6. During startup of the vapor cleaning machine, the primary condenser shall be turned on before the sump heater. [40 CFR §63.463(d)(6)]

7. During shutdown of the vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off. [40 CFR §63.463(d)(7)]
8. When solvent is added or drained from the solvent cleaning machine, the solvent shall be transferred using threaded or other leak-proof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface. [40 CFR §63.463(d)(8)]
9. The solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the Administrator's satisfaction to achieve the same or better results as those recommended by the manufacturer. [40 CFR §63.463(d)(9)]
10. Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning procedures in 40 CFR Part 63 Subpart T, Appendix A if requested during an inspection by the Administrator. [40 CFR §63.463(d)(10)]
11. Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container. [40 CFR §63.463(d)(11)]
12. Sponges, fabric, wood, and paper products shall not be cleaned. [40 CFR §63.463(d)(12)]
13. Keep the cover closed at all times except when processing workloads through the degreaser. [RCSA §22a-174-20(l)(4)(D)]
14. Store waste degreasing solvent only in covered containers and not dispose of waste degreasing solvent or transfer it to another party, such that greater than 20 percent of the waste degreasing solvent (by weight) can evaporate into the atmosphere. [RCSA §22a-174-20(l)(4)(E)]
15. Minimize solvent carryout by: (i) Racking parts to allow complete drainage; (ii) moving parts in and out of the degreasing unit at less than 3.3 meters per minute (11 feet per minute); (iii) holding the parts in the vapor zone at least thirty (30) seconds or until condensation ceases, whichever is longer; (iv) tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and (v) allowing parts to dry within the degreasing unit for at least fifteen seconds or until visually dry, whichever is longer. [RCSA §22a-174-20(l)(4)(F)]
16. Do not degrease porous or absorbent materials, such as cloth, leather, wood or rope. [RCSA §22a-174-20(l)(4)(G)]
17. Do not occupy more than half of the degreaser unit's open top area with a workload. [RCSA §22a-174-20(l)(4)(H)]
18. Do not load the degreasing unit to the point where the vapor level would drop more than ten (10) centimeters (4 inches) when the workload is removed from the vapor zone. [RCSA §22a-174-20(l)(4)(I)]
19. Always spray within the vapor level. [RCSA §22a-174-20(l)(4)(J)]
20. Operate the degreasing unit so as to prevent water from being visually detectable in solvent exiting the water separator. [RCSA §22a-174-20(l)(4)(K)]

21. Do not expose the degreasing unit to drafts greater than forty (40) meters per minute (131 feet per minute) as measured between 1 and 2 meters upwind and at the same elevation as the tank lip, nor provide exhaust ventilation exceeding twenty (20) cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreasing unit open area, unless necessary to meet OSHA requirements. [RCSA §22a-174-20(l)(4)(L)]
22. Do not operate the unit upon the occurrence of any visible solvent leak until such leak is repaired. [RCSA §22a-174-20(l)(4)(M)]
23. Provide a permanent, conspicuous label on or posted near each unit summarizing the applicable operating requirements [RCSA §22a-174-20(l)(4)(N)]

PART III. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

A. Criteria Pollutants

The following emissions limits apply to all vapor degreasers on the premises, combined.

Pollutant	lb/hr	lb/12 consecutive months	tpy
VOC/HAP (TCE)	4.70	13,442	6.72

VOC/HAP or Solvents Emitted = Solvent Consumption – Solvent Removed

B. Hazardous Air Pollutants

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA Section 22a-174-29. [STATE ONLY REQUIREMENT]

- C.** Demonstration of compliance with the above emission limits may be met by calculating the emission rates using the most recent DEEP approved stack test results or emission factors from the following sources:

- Material balance

The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

PART IV. MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

A. Monitoring Requirements

1. The Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode on a weekly basis. [40 CFR §63.466(a)(1)]
2. The Permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute). [40 CFR §63.466(c)(1)]

3. The Permittee shall monitor hoist speed as described in 40 CFR §63.466(c)(2) on a monthly basis. If after the first year, no exceedances of the hoist speed are measured, the monitoring may be done on a quarterly basis. [40 CFR §63.466(c)(2)]
4. If an exceedance of the hoist speed occurs during the quarterly monitoring, the Permittee shall return to monthly monitoring frequency until another year of compliance is demonstrated. [40 CFR §63.466(c)(3)]
5. If the Permittee demonstrates that the initial compliance report that the hoist cannot exceed a speed of 11 feet (3.4 meters) per minute, all monitoring shall be on a quarterly basis. [40 CFR §63.466(c)(4)]

B. Record Keeping Requirements

1. The Permittee shall record the monthly and consecutive 12 month solvent consumption, solvents removed and solvents emitted. The consecutive 12 month solvent consumption, solvents removed and solvents emitted shall be determined by adding each month's solvent consumption, solvents removed and solvents emitted to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the previous month. [RCSA §22a-174-20(l)(4)(O)]
2. The Permittee shall make and keep record of the degreaser's operating date and hours.
3. The Permittee shall, on a weekly basis, record the thermometer or thermocouple measuring the temperature at center of air blanket during idling mode. The records shall also include the date of measurement and the name of the operator. [40 CFR §63.466(a)(1)]
4. The Permittee shall maintain the following records in written or electronic form for the lifetime of the machine:
 - a. Owner's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment. [40 CFR §63.467(a)(1)]
 - b. Date of installation of machine and all control devices. [40 CFR §63.467(a)(2)]
 - c. Records of tests required in 40 CFR §63.465(d) to determine an appropriate dwell time for each part or parts basket. [40 CFR §63.467(a)(3)]
 - d. Records of initial performance test of idling emission rate and values of monitoring parameters measured during test. [40 CFR §63.467(a)(4)]
 - e. Records of halogenated HAP solvent content for each solvent used subject to 40 CFR Part 63 Subpart T. [40 CFR §63.467(a)(5)]
5. The Permittee shall maintain the following records in written or electronic form for a period of five years:
 - a. Results of control device monitoring required under 40 CFR §63.466. [40 CFR §63.467(b)(1)]
 - b. Information on the actions taken to comply with 40 CFR §63.463(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels. [40 CFR §63.467(b)(2)]
 - c. Estimated annual solvent consumption. [40 CFR §63.467(b)(3)]
6. The Permittee shall make and keep records of degreaser operator training.
7. The Permittee shall calculate and record the monthly and consecutive 12 month VOC/HAP

emissions in units of tons for this vapor degreaser unit, and for all vapor degreasers on the premises, combined. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

8. The Permittee shall keep material safety data sheets (MSDS) or technical data sheets (TDS) or Safety Data Sheets (SDS) for each solvent used. Such information shall include the quantity and type of each hazardous air pollutant contained in the paint or solvent. For paperwork reduction, these sheets may be kept on computer file in electronic form, access to above paperwork requirement may also be allowed via internet on-demand.
9. The Permittee shall obtain a certificate from the waste solvent disposer. Such certification shall include the name of waste solvent disposer, the quantity of waste solvent, and the method used to determine solvent containing TCE.
10. The Permittee shall make and keep a sample TCE emission calculation and supporting documentation.
11. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

C. Reporting Requirements

1. The Permittee shall submit all reports including the following reports to EPA required by 40 CFR §63.468:
 - a. Initial notification report submitted as soon as practical before construction. [40 CFR §63.468(a) and (b)]
 - b. Initial statement of compliance submitted no later than 150 days after startup. [40 CFR §63.468(d)]
 - c. Annual report submitted by February 1 of the year following the one for which the reporting is being made. [40 CFR §63.468(f)]
 - d. Exceedance report submitted semiannually if no exceedances occur whereas quarterly if there are exceedances. [40 CFR §63.468(h)]
2. The Permittee shall report all exceedances, corrections, and adjustments made to avoid an exceedance as specified in 40 CFR §63.468(h). [40 CFR §63.463(e)(4)]
3. Semiannual reporting of monitoring and deviations shall be submitted to EPA by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.
4. Annual certification of compliance report shall be submitted to EPA by March 15 for the previous calendar year.

PART V. OPERATION AND MAINTENANCE REQUIREMENTS

- A.** The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.
- B.** The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants.

- C. All equipment operators shall be trained in the proper operation and maintenance of both the degreaser and control devices.

PART VI. SPECIAL REQUIREMENTS

- A. The Permittee shall comply with all applicable sections of the following National Emission Standard(s) at all times.

Title 40 CFR Part 63, Subparts T and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

B. Premises Emissions Summary

1. On January 1st of each calendar year, if the potential emissions of NO_x and/or VOC from the premises are equal to or greater than 25 tons per year per pollutant, then for such pollutant(s), the Permittee shall:
 - a. Monitor NO_x and/or VOC emissions, as applicable, from the premises for such calendar year.
 - b. Calculate and record annual NO_x and/or VOC emissions, as applicable, from the premises for such calendar year, in units of tons. The Permittee shall make these calculations on or before February 1st of the following year with respect to the previous calendar year. Such records shall include a sample calculation(s).
 - c. If actual NO_x and/or VOC emissions, as applicable, from the premises are equal to or greater than 25 tons for such calendar year, the Permittee shall submit to the commissioner, on or before March 1st of the following year, an annual emissions summary with respect to the premises for the previous calendar year. Such summary shall be submitted on forms prescribed or provided by the commissioner.
 2. A Permittee with either of the following premises is exempt from Part VI.B.1 requirements of this permit if, on January 1st of the subject year, the:
 - a. Premises is operating in accordance with a valid Title V permit issued pursuant to RCSA section 22a-174-33; or
 - b. Premises is operating in accordance with a valid Approval of Registration issued pursuant to the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution issued on November 9, 2015.
- C. The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor beyond the property boundary of the premises that constitutes a nuisance as set forth in RCSA Section 22a-174-23. [STATE ONLY REQUIREMENT]
 - D. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]
 - E. The Permittee shall resubmit for review and approval a Best Available Control Technology (BACT) analysis if such construction or phased construction has not commenced within the 18 months following the commissioner's approval of the current BACT determination (i.e., the date of this permit) for such construction or phase of construction. [RCSA §22a-174-3a(i)(4)]

PART VII. ADDITIONAL TERMS AND CONDITIONS

- A.** This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B.** Any representative of DEEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C.** This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D.** This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
- E.** Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."
- F.** Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- G.** Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.
- H.** The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
- I.** Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.