

3. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in a rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
4. This permit is issued based on emissions of volatile organic from any emission unit not exceeding 8 lb/hour pursuant to 35 Ill. Adm. Code 218.301.
5. The degreaser is subject to 40 CFR Part 63, Subpart T - National Emission Standards for Halogenated Solvent Cleaning. The Illinois EPA is administering this regulation in Illinois on behalf of the United States EPA under a delegation agreement.
6. The batch vapor degreaser must meet the following design and operating requirements, pursuant to 40 CFR 63.463:
 - a. The Permittee is required to operate the control option known as a freeboard refrigeration device. This requires the Permittee to ensure that the chilled air blanket temperature (in EF or EC), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point. [40 CFR 63.463(e)(2)(i)];
 - b. The cleaning machine shall have a freeboard ratio of 1.0 or greater [40 CFR 63.463(a)(2)].
 - c. The cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts [40 CFR 63.463(a)(3)].
 - d. The vapor cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils [40 CFR 63.463(a)(4)].
 - e. The vapor cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser [40 CFR 63.463(a)(5)].
 - f. The vapor cleaning machine shall have a primary condenser [40 CFR 63.463(a)(6)].

- g. Cover(s) to each 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 require the cover(s) to not be in place [40 CFR 63.463(d)(1)(I)].
- h. 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)].
- i. 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)].
- j. 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 from any solvent cleaning machine [40 CFR 63.463(d)(4)].
- k. Parts baskets or parts shall not be removed until dripping has stopped [40 CFR 63.463(d)(5)].
- l. During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater [40 CFR 63.463(d)(6)].
- m. During shutdown of each 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)].
- n. When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof 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)].
- o. Each 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 Illinois EPA's satisfaction to achieve the same or better results as those recommended by the manufacturer [40 CFR 63.463(d)(9)].

- p. Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures pursuant to 40 CFR, Part 63 Subpart T Appendix B if requested during an inspection by the Illinois EPA [40 CFR 63.463(d)(10)].
 - q. 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)].
 - r. Sponges, fabric, wood, and paper products shall not be cleaned in the solvent cleaning machine [40 CFR 63.463(d)(12)].
7. Emission and operation of the 2 vapor degreasers shall not exceed the following limits:

VOM Usage and Emissions
(Tons/Month) (Tons/Year)

1.0 8.9

These limits are based on the maximum solvent usage and emissions determined by material balance. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

VOM usage shall be determined from the following equation:

$$U = V - W \times C/100$$

Where:

U - VOM usage;

V - virgin solvent added to the process (gal);

W - certified amount of waste shipped off for recycling (gal);

C - certified VOM content of waste solvent (wt %).

8. The Permittee shall perform the following monitoring procedures pursuant to 40 CFR 63.466.

- a. For the freeboard refrigeration device the Permittee shall use a thermometer or thermocouple to measure the temperature at the center of the superheated solvent vapor zone while the solvent cleaning machine is in the idling mode. The temperature shall be measured and recorded on a weekly basis [40 CFR 63.466(a)(1)].
 - b. The Permittee shall monitor the hoist speed in the following manner [40 CFR 63.466(c)(1)]:
 - i. 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 or feet divided by the time in minutes.
 - ii. The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the Permittee may begin monitoring the hoist speed quarterly.
 - iii. If an exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency must be monitored monthly until another year of compliance without an exceedance is demonstrated.
9. The Permittee shall retain the following records, pursuant to 40 CFR 63.467:
- a. The records maintained for the lifetime of the solvent cleaning machine [40 CFR 63.467(a)]:
 - i. Owner's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.
 - ii. The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.
 - iii. Records of the halogenated HAP solvent content for each solvent used in the solvent cleaning machine.
 - b. The record maintained for a period of 5 years [40 CFR 63.467(b)]:

- i. The Permittee shall maintain weekly records of the temperature measured at the center of the freeboard refrigeration device zone while the solvent cleaning machine is in the idling mode.
 - ii. Monthly or quarterly records of the hoist speed.
 - iii. The Permittee shall maintain 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.
 - v. The Permittee shall maintain the following records effective upon issuance of this permit:
 - A. Monthly and annual solvent usage in pounds or tons.
 - B. Which solvent is used.
10. The Permittee shall submit an annual report for the batch vapor degreaser by February 1 of the year following the one for which the reporting is being required pursuant to 40 CFR 63.468(f). The report shall include the following:
- a. A signed statement from the source owner or his designee stating that "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required by 40 CFR 63.463(d)(10)."
 - b. An estimate of solvent consumption for each solvent cleaning machine during the reporting period.
 - c. The Permittee shall submit an exceedance report for the batch vapor degreaser to the Illinois EPA semiannually [40 CFR 63.468(h)] except when, the Illinois EPA determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source or, an exceedance occurs. Once an exceedance has occurred the owner or operator shall submit an exceedance report quarterly until a request to reduce reporting frequency is approved [40 CFR 63.468(i)]. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. The exceedance report shall include the following information:

- i. The records required by 40 CFR 63.463(e) and (f).
 - ii. If an exceedance has occurred, the reason for the exceedance and a description of the actions taken, to minimize or prevent future exceedances.
 - iii. If no exceedances of a parameter have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.
11. The batch vapor degreaser shall be operated according to the following operating and equipment requirements of 35 Ill. Adm. Code 218.183:
- a. Operating Requirements: No person shall operate the batch vapor degreaser unless:
 - i. Solvent carry out emissions are minimized by allowing parts to dry within the degreaser until visually dry;
 - ii. The degreaser is not loaded to the point where the vapor level would drop more than 10 cm (4 in) when the workload is removed from the vapor zone;
 - iii. Solvent leaks are repaired immediately;
 - iv. Waste solvent is stored in covered containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
 - v. Water is not visually detectable in solvent exiting from the water separator; and
 - vi. Exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser open area is not used, unless necessary to meet the requirements of the Occupational Safety and Health Act (29 U.S.C. Section 651 et. seq.).
 - b. Equipment Requirements: No person shall operate the batch vapor degreaser unless:
 - i. The degreaser is equipped with a cover designed to open and close easily without disturbing the vapor zone;
 - ii. The degreaser is equipped with the following switches;

- A. One which shuts off the sump heat if the amount of condenser coolant is not sufficient to maintain the designed vapor level; and
 - B. One which shuts off the spray pump if the vapor level drops more than 10 cm (4 in) below the bottom condenser coil; and
 - C. One which shuts off the sump heat source when the vapor level exceeds the design level.
- iii. A permanent conspicuous label summarizing the operating procedure is affixed to the degreaser.
12. The cold cleaning degreaser shall be operated according to the requirements of 35 Ill. Adm. Code 218.182:
- a. Operating Procedures: No person shall operate a cold cleaning degreaser unless:
 - i. Waste solvent is stored in covered containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
 - ii. The cover of the degreaser is closed when parts are not being handled; and
 - iii. Parts are drained until dripping ceases.
 - b. Equipment Requirements: No person shall operate a cold cleaning degreaser unless:
 - i. The degreaser is equipped with a cover which is closed whenever parts are not being handled in the cleaner. The cover shall be designed to be easily operated with one hand or with the mechanical assistance of springs, counter-weights or a powered system if:
 - A. The solvent vapor pressure is greater than 2 kPa (15 mmHg or 0.3 psi) measured at 38EC (100EF);
 - B. The solvent is agitated; or
 - C. The solvent is heated above ambient room temperature.

- ii. The degreaser is equipped with a device for draining cleaned parts. The drainage device shall be constructed so that parts are enclosed under the cover while draining unless:
 - A. The solvent vapor pressure is less than 4.3 kPa (32 mmHg or 0.6 psi) measured at 38EC (100EF); or
 - B. An internal drainage device cannot be fitted into the cleaning system, in which case the drainage device may be external.
 - iii. The degreaser is equipped with one of the following control devices if the vapor pressure of the solvent is greater than 4.3 kPa (32 mmHg or 0.6 psi) measured at 38EC (100EF) or if the solvent is heated above 50EC (120EF) or its boiling point:
 - A. A freeboard height of 7/10 of the inside width of the tank or 91 cm (36 in), which ever is less; or
 - B. Any other equipment or system of equivalent emission control as approved by the Illinois EPA and further processed consistent with Section 218.108 of this Part. Such a system may include a water cover, refrigerated chiller or carbon adsorber.
 - iv. A permanent conspicuous label summarizing the operating procedure is affixed to the degreaser; and
 - v. If a solvent spray is used, the degreaser is equipped with a solid fluid stream spray, rather than a fine, atomized or shower spray.
- c. Material Requirements:
- i. On and after March 15, 1999, no person shall:
 - A. Cause or allow the sale of solvent with a vapor pressure which exceeds 2.0 mmHg (0.038 psi) measured at 20EC (68EF) in units greater than five gallons, for use in cold cleaning degreasing operations located in the area covered by Section 218.103 of this part.
 - B. Operate a cold cleaning degreaser with a solvent vapor pressure which exceeds 2.0 mmHg (0.038 psi) measured at 20EC (68EF).
 - ii. On and after March 15, 2001, no person shall:

- A. Cause or allow the sale of solvent with a vapor pressure which exceeds 1.0 mmHg (0.019 psi) measured at 20EC (68EF) in units greater than five gallons, for use in cold cleaning degreasing operations located in the area covered by Section 218.103 of this part.
 - B. Operate a cold cleaning degreaser with a solvent vapor pressure which exceeds 1.0 mmHg (0.019 psi) measured at 20EC (68EF).
- d. Recordkeeping Requirements: On and after March 15, 1999:
- i. All persons subject to the requirements of subsections (c)(1)(A) and (c)(2)(A) of this Section must maintain records which include for each sale:
 - A. The name and address of the solvent purchaser;
 - B. The date of sale;
 - C. The type of solvent;
 - D. The unit volume of solvent;
 - E. The total volume of solvent; and
 - F. The vapor pressure of the solvent measured in mmHg at 20EC (68EF).
 - ii. All persons subject to the requirements of subsections (c)(1)(B) and (c)(2)(B) of this Section must maintain records which include for each purchase:
 - A. The name and address of the solvent supplier;
 - B. The date of purchase;
 - C. The type of solvent; and
 - D. The vapor pressure of the solvent measured in mmHg at 20EC (68EF).
- e. All records required by subsection (d) of this Section shall be retained for three years and shall be made available to the Illinois EPA upon request.

- f. The cleaning of electronic components as defined in 35 Ill. Adm. Code Section 211.1885 is exempt from the requirements of subsection (c) of this Section.
 - g. Any cold cleaning taking place in a Detrex cold batch degreaser Model #2D-CC-SPL Size 24-4.10, or substantial equivalent, including automated loading of parts, totally enclosed operation (excluding loading and unloading) and permitted by the Illinois EPA, is exempt from the requirements of subsection (c) of this Section.
13. This permit is issued based on no emissions from clean-up operations.
 14. At all times the Permittee shall, to the extent practicable, maintain and operate the equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
 15. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the nuisance.
 16. The Permittee shall maintain monthly records of the following items:
 - a. Material type and usage (gallon/month and gallon/year); and
 - b. VOM and HAP content of each material (lb/gallon).
 17. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
 18. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

19. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
1340 North Ninth Street
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Eisenhower Tower
1701 South First Avenue
Maywood, Illinois 60153

20. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: Usage of each material and VOM content. If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.

It should be noted that the boiler is exempt from state permit requirements, pursuant to 35 Ill. Adm. Code 201.146(c).

If you have any questions on this, please call Randy Solomon at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:RBS:psj

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from this metal stamping facility operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. This scenario is maximum operating hours and material usage from the 3 degreasers and 25 stamping presses. The resulting maximum emissions are below the levels, e.g., 25 tons per year of VOM, 25 tons per year of combined HAPs, and 10 tons per year of single HAPs at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, equipment operating hours are lower, and control measures are more effective than required in this permit.

- 1a. Emissions and operation of equipment shall not exceed the following limits:

| <u>Item of Equipment</u> | <u>VOM Usage and Emissions</u> | |
|---------------------------|--------------------------------|--------------------|
| | <u>(Tons/Month)</u> | <u>(Tons/Year)</u> |
| 2 Vapor Degreasers | 1.0 | 8.9 |
| 1 Cold Cleaning Degreaser | 0.1 | 1 |
| 25 Stamping Presses | 1.4 | 14 |

These limits are based on maximum usage rates of materials, maximum hours of operation, and VOM contents. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in a rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.

RBS:psj