

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NESHAP SOURCE  
REVISION

PERMITTEE

Sterling Multi-Products, Inc.  
Attn: Chuck Gorman  
326 West 5th Street  
Prophetstown, Illinois 61277

Application No.: 73110085

I.D. No.: 195040AAH

Applicant's Designation: FESOP

Date Received: February 14, 2011

Subject: Stamping Operation

Date Issued: April 11, 2011

Expiration Date: May 12, 2014

Location: 326 West 5th Street, Prophetstown, Whiteside County

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of an open-top vapor degreaser pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Volatile Organic Material (VOM), 10 tons/year for any single hazardous air pollutant (HAP) and 25 tons/year for any combination of such HAPs). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to initial issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
2. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided in 35 Ill. Adm. Code 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215 Subpart K shall apply only to photochemically reactive material.
3. This permit is issued based upon the open-top vapor degreaser not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning, 40 CFR 63 Subpart T, because the open-top vapor degreaser does not use any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in

a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.

- 4a. Pursuant to 35 Ill. Adm. Code 215.183(a), no person shall operate an open top vapor degreaser unless:
- i. The cover of the degreaser is closed when workloads are not being processed through the degreaser;
  - ii. Solvent carryout emissions are minimized by:
    - A. Racking parts to allow complete drainage;
    - B. Moving parts in and out of the degreaser at less than 3.3 m/min (11 ft/min);
    - C. Holding the parts in the vapor zone until condensation ceases;
    - D. Tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and,
    - E. Allowing parts to dry within the degreaser until visually dry.
  - iii. Porous or absorbent materials, such as cloth, leather, wood or rope are not degreased;
  - iv. Less than half of the degreaser's open top area is occupied with a workload;
  - v. 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;
  - vi. Spraying is done below the vapor level only;
  - vii. Solvent leaks are repaired immediately;
  - viii. 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;
  - ix. Water is not visually detectable in solvent exiting from the water separator; and
  - x. 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. Pursuant to 35 Ill. Adm. Code 215.183(b), no person shall operate an open top 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. A device which shuts off the sump heat source if the amount of condenser coolant is not sufficient to maintain the designed vapor level; and
  - B. A device which shuts off the spray pump if the vapor level drops more than 10 cm (4 in) below the bottom condenser coil; and
  - C. A device 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;
- iv. The degreaser is equipped with one of the following devices:
  - A. A freeboard height of 3/4 of the inside width of the degreaser tank or 91 cm (36 in), whichever is less; and if the degreaser opening is greater than 1 square meter (10.8 square feet), a powered or mechanically assisted cover; or
  - B. Any other equipment or system of equivalent emission control as approved by the Illinois EPA. Such equipment or system may include a refrigerated chiller, an enclosed design or a carbon adsorption system.
- 5a. 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.
- b. The open-top vapor degreaser shall only be operated with a solvent not containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight. The use of any solvent in the open-top vapor degreaser containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.

- 6a. Emissions and operation of the vapor degreaser shall not exceed the following limits:

<u>Material</u>	<u>Usage</u>		<u>Pollutant</u>	<u>Emissions</u>	
	<u>(lbs/Mo)</u>	<u>(lbs/Yr)</u>		<u>(lbs/Mo)</u>	<u>(Tons/Yr)</u>
Degreaser Solvent	1500	15,000	VOM	1500	7.5

These limits are based on the complete volatilization of the solvent and the maximum solvent usage. Note that there is a "nested" limit on the emissions of the combination of HAPs as a result of the limit on VOM emissions. The HAPs emitted at this source have been determined to be VOMs and therefore limiting VOM emissions also limits HAP emissions.

- b. For determination of compliance with the limits of this permit, solvent usage shall be determined by the following equation:

$$U = V - (W \times P)$$

Where:

U = Solvent usage for compliance determinations (gallons);

V = Virgin solvent<sup>A</sup> added to the solvent cleaning machines (gallons), as determined by daily addition log sheets;

W = Waste solvent<sup>B</sup> removed from the solvent cleaning machines and sent off-site for reclamation or disposal, as determined by monthly manifests; and

P = Percent concentration of solvent in waste, as determined by analysis/testing<sup>C</sup>.

<sup>A</sup> For purposes of this permit, virgin solvent is unused solvent.

<sup>B</sup> For purposes of this permit, waste solvent is used solvent.

<sup>C</sup> The percent concentration of solvent in waste (P) shall be determined in accordance with USEPA Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW-846), Test Method 8260.

- c. Compliance with the monthly organic material emission limits shall be calculated using the solvent density as specified in the Material Safety Data Sheet, and the solvent usage (U) per month, as follows:

$$\text{Emissions (lbs/mo)} = \text{solvent usage, U (gal/mo)} \times \text{solvent density (lbs/gal)}$$

- d. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
7. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit,

without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to Section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

- 8a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
- i. Identification of the cleaning solvent used in the vapor degreaser;
  - ii. The amount of cleaning solvent added to vapor degreaser (lbs/month and tons/year); and
  - iii. Monthly and annual emissions of VOM and HAP with supporting calculations (lbs/month and tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) 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 storage device) shall be cable 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.
- 9a. If there is an exceedance of or a deviation from 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 or deviation. 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 deviation and efforts to reduce emissions and future occurrences.

- b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
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  
5407 N. University Street  
Peoria, Illinois 61614

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

It should be noted this permit has been revised to include operation of the equipment described in construction permit 11010024

Edwin C. Bakowski, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

Date Signed: \_\_\_\_\_

ECB:DWH:jws

cc: Illinois EPA, FOS Region 2  
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from Metal Stamping Plant 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. The resulting maximum emissions are below the levels (e.g., 10 tons/year of any Single Hazardous Air Pollutant (HAP) and 25 tons/year for any combination of such 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 and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)		
	<u>VOM</u>	Single <u>HAP</u>	Total <u>HAPs</u>
Vapor Degreaser	<u>7.5</u>	<u>----</u>	<u>----</u>
Totals	<u>7.5</u>	<u>7.5</u>	<u>7.5</u>