

## CONSTRUCTION PERMIT - OPERATING PERMIT DENIAL-- NESHAP SOURCE

PERMITTEE

Meco, Inc.  
Attn: Mr. Larry St. John  
2121 South Main Street  
Paris, Illinois 61944

Application No.: 07060031

I.D. No.: 045030ABR

Applicant's Designation: PARTS CLEAN TECH OPEN TOP VD Date Received: July 13, 2007

Subject: Replacement Open Top Vapor Degreaser

Date Issued:

Location: 2121 South Main Street, Paris, Edgar County

This permit is hereby granted to the above-designated Permittee to CONSTRUCT emission unit(s) and/or air pollution control equipment consisting of:

One Open Top Vapor Degreaser (Vapor Degrease #2)

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This permit is issued based on the construction of an open top vapor degreaser not constituting a new major source or major modification pursuant to Section 112(g) of the Clean Air Act. The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the of hazardous air pollutants (HAPs) as listed in Section 112(b) from the above-listed equipment below the levels that would trigger the applicability of these rules (i.e., 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs).
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- 2a. The solvent cleaning machine(s) at this source are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning, 40 CFR 63 Subparts A and T. The Illinois EPA is administering this regulation in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Pursuant to 40 CFR 63.463(a), except as provided in 40 CFR 63.464 for all cleaning machines, each owner or operator of a solvent cleaning machine subject to the provisions of 40 CFR 63 Subpart T shall ensure that each existing or new batch vapor or in-line solvent cleaning machine subject to the provisions of this subpart conforms to the design requirements specified in 40 CFR 63.463(a)(1) through (7). The owner or operator of a continuous web cleaning machine shall comply with the requirements of 40 CFR 63.463(g) or (h), as appropriate, in lieu of complying with this paragraph.

- i. Each cleaning machine shall be designed or operated to meet the control equipment or technique requirements in 40 CFR 63.463(a)(1)(i) or (a)(1)(ii).
  - A. An idling and downtime mode cover, as described in 40 CFR 63.463(d)(1)(i), 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 reduced room draft as described in 40 CFR 63.463(e)(2)(ii)
- ii. Each cleaning machine shall have a freeboard ratio of 0.75 or greater.
- iii. Each 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.
- iv. Each 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. This requirement does not apply to a vapor cleaning machine that uses steam to heat the solvent.
- v. Each 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.
- vi. Each vapor cleaning machine shall have a primary condenser.
- vii. Each cleaning machine that uses a lip exhaust shall be designed and operated to route all collected solvent vapors through a properly operated and maintained carbon adsorber that meets the requirements of 40 CFR 63.463(e)(2)(vii).
- c. Pursuant to 40 CFR 63.463(b), except as provided in 40 CFR 63.464, each owner or operator of an existing or new batch vapor cleaning machine shall comply with either 40 CFR 63.463(b)(1) or (b)(2).
  - i. Each owner or operator of a batch vapor cleaning machine with a solvent/air interface area of 1.21 square meters (13 square feet) or less shall comply with the requirements specified in either 40 CFR 63.463(b)(1)(i) or (b)(1)(ii).
    - A. Employ one of the control combinations listed in table 1 of 40 CFR 63 Subpart T or other equivalent methods of control as determined using the procedure in 40 CFR 63.469, equivalent methods of control.

Option

Control combinations

- 5. Freeboard refrigeration device, reduced room

- draft.
  - 6. Freeboard refrigeration device, freeboard ratio of 1.0.
  - 7. Freeboard refrigeration device, dwell.
  - 8. Reduced room draft, dwell, freeboard ratio of 1.0.
- B. Demonstrate that their solvent cleaning machine can achieve and maintain an idling emission limit of 0.22 kilograms per hour per square meter (0.045 pounds per hour per square foot) of solvent/air interface area as determined using the procedures in 40 CFR 63.465(a) and appendix A to 40 CFR Part 63.
- d. Pursuant to 40 CFR 63.463(d), except as provided in 40 CFR 63.464 for all cleaning machines, each owner or operator of an existing or new batch vapor or in-line solvent cleaning machine shall meet all of the following required work and operational practices specified in 40 CFR 63.463(d)(1) through (12) as applicable. The owner or operator of a continuous web cleaning machine shall comply with the requirements of 40 CFR 63.463(g) or (h), as appropriate, in lieu of complying with this paragraph.
- i. Control air disturbances across the cleaning machine opening(s) by incorporating the control equipment or techniques in 40 CFR 63.463(d)(1)(i) or (d)(1)(ii).
    - A. 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 requires the cover(s) to not be in place.
    - B. A reduced room draft as described in 40 CFR 63.463(e)(2)(ii)
  - ii. 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.
  - iii. 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).
  - iv. 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 unless an equally effective approach has been approved by the Illinois EPA or USEPA.
  - v. Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.

- vi. During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.
  - vii. 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.
  - viii. When solvent is added or drained from any 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.
  - ix. Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning procedures in appendix A to 40 CFR Part 63 if requested during an inspection by the Illinois EPA or USEPA.
  - x. 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.
- 3a. 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.
- c. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kgs/hour (8 lbs/hour) 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.

- 4a. 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 odor nuisance.
  - b. This permit is issued based on the use of perchloroethylene (tetrachloroethylene) as solvent in Vapor Degreaser 2. The use of any other solvent in Vapor Degreaser 2 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.
- 5a. Emissions and operation of Vapor Degreaser 2 shall not exceed the following limits:

<u>Solvent<sup>1</sup> Usage</u> <u>(Gallons/Month)</u>	<u>(Gallons/Year)</u>	<u>HAP<sup>2</sup> Emissions</u> <u>(Lb/Month)</u>	<u>(Tons/Year)</u>
121.5	1,458	1,650	9.9

These limits are based on maximum solvent usage and a perchloroethylene density of 13.58 lbs/gallon and determined by material balance.

<sup>1</sup> Perchloroethylene is the solvent used.

<sup>2</sup> HAPs as identified in Section 112(b) of the Clean Air Act as amended in 1990. Perchloroethylene (tetrachloroethylene) is listed as a HAP.

- b. 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).
- 6a. 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.

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 defined as

unused solvent.

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

- b. 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:

$$\begin{aligned} \text{Emissions} &= \text{Solvent Usage (U)} \times \text{Solvent Density} \\ (\text{lbs/month}) &= (\text{gallon/month}) \quad \times \quad (\text{lbs/gallon}) \end{aligned}$$

7. Vapor Degreaser #2 may be operated for a period of 12 months under this construction permit.
- 8a. Pursuant to 40 CFR 63.7(a)(2), except as provided in 40 CFR 63.7(a)(4), if required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of 40 CFR 63.7(c)(3)(ii)(B) apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.
- b. Pursuant to 40 CFR 63.7(b), Notification of performance test:
- i. The owner or operator of an affected source must notify the Illinois EPA or USEPA in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Illinois EPA or USEPA, upon request, to review and approve the site-specific test plan required under 40 CFR 63.7(c) and to have an observer present during the test.
- ii. In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in 40 CFR 63.7(b)(1) due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Illinois EPA or USEPA as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Illinois EPA or USEPA from implementing or enforcing 40 CFR Part 63 or taking any other action under the Clean Air Act.
- c. Pursuant to 40 CFR 63.7(c), Quality assurance program.
- i. The results of the quality assurance program required in this

paragraph will be considered by the Illinois EPA or USEPA when he/she determines the validity of a performance test.

- ii. A. Submission of site-specific test plan. Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Illinois EPA or USEPA, shall submit a site-specific test plan to the Illinois EPA or USEPA for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.
  - B. The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.
  - C. The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Illinois EPA or USEPA and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Illinois EPA or USEPA of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.
  - D. The owner or operator of an affected source shall submit the site-specific test plan to the Illinois EPA or USEPA upon the Illinois EPA's or USEPA's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under 40 CFR 63.7(b), or on a mutually agreed upon date.
  - E. The Illinois EPA or USEPA may request additional relevant information after the submittal of a site-specific test plan.
- iii. Approval of site-specific test plan.
  - A. The Illinois EPA or USEPA will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under 40 CFR 63.7(c)(3)(i)(B). Before disapproving any site-specific test plan, the Illinois EPA or USEPA will notify the applicant of the Illinois EPA's or USEPA's intention to

disapprove the plan together with:

- I. Notice of the information and findings on which the intended disapproval is based; and
  - II. Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Illinois EPA or USEPA before final action on the plan.
- B. In the event that the Illinois EPA or USEPA fails to approve or disapprove the site-specific test plan within the time period specified in 40 CFR 63.7(c)(3)(i), the following conditions shall apply:
- I. If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see 40 CFR 63.7(e)(2)(i)), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);
  - II. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Illinois EPA or USEPA approves the use of the alternative method when the Illinois EPA or USEPA approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see 40 CFR 63.7(f)). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Illinois EPA's or USEPA's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.
- C. Neither the submission of a site-specific test plan for approval, nor the Illinois EPA's or USEPA's approval or disapproval of a plan, nor the Illinois EPA's or USEPA's failure to approve or disapprove a plan in a timely manner

shall:

- I. Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or
  - II. Prevent the Illinois EPA or USEPA from implementing or enforcing 40 CFR Part 63 or taking any other action under the Clean Air Act.
- vi. A. Performance test method audit program. The owner or operator must analyze performance audit (PA) samples during each performance test. The owner or operator must request performance audit materials 30 days prior to the test date. Audit materials including cylinder audit gases may be obtained by contacting the appropriate EPA Regional Office or the responsible enforcement authority.
- B. The Illinois EPA or USEPA will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.
- C. If the Illinois EPA or USEPA fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.
- d. Pursuant to 40 CFR 63.7(d), if required to do performance testing, the owner or operator of each new source and, at the request of the Illinois EPA or USEPA, the owner or operator of each existing source, shall provide performance testing facilities as follows:
- i. Sampling ports adequate for test methods applicable to such source. This includes:
    - A. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and
    - B. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;
  - ii. Safe sampling platform(s);
  - iii. Safe access to sampling platform(s);
  - iv. Utilities for sampling and testing equipment; and

- v. Any other facilities that the Illinois EPA or USEPA deems necessary for safe and adequate testing of a source.
- e. Pursuant to 40 CFR 63.7(e), conduct of performance tests.
  - i. Performance tests shall be conducted under such conditions as the Illinois EPA or USEPA specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under 40 CFR 63.6(e). Upon request, the owner or operator shall make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of performance tests.
  - ii. Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of 40 CFR parts 51, 60, 61 and 63 unless the Illinois EPA or USEPA:
    - A. Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in 40 CFR 63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see 40 CFR 63.7(c)); or
    - B. Approves the use of an intermediate or major change or alternative to a test method (see definitions in 40 CFR 63.90(a)), the results of which the Illinois EPA or USEPA has determined to be adequate for indicating whether a specific affected source is in compliance; or
    - C. Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or
    - D. Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Illinois EPA or USEPA's satisfaction that the affected source is in compliance with the relevant standard.
  - iii. Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Illinois EPA or

USEPA, results of a test run may be replaced with results of an additional test run in the event that:

- A. A sample is accidentally lost after the testing team leaves the site; or
  - B. Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
  - C. Extreme meteorological conditions occur; or
  - D. Other circumstances occur that are beyond the owner or operator's control.
- iv. Nothing in 40 CFR 63.7(e)(1) through (e)(3) shall be construed to abrogate the USEPA's authority to require testing under section 114 of the Clean Air Act.
- f. Pursuant to 40 CFR 63.7(g), Data analysis, recordkeeping, and reporting.
- i. Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Illinois EPA or USEPA in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Illinois EPA or USEPA before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Illinois EPA or USEPA [see 40 CFR 63.9(i)]. The results of the performance test shall be submitted as part of the notification of compliance status required under 40 CFR 63.9(h). Before a Title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Illinois EPA or USEPA. After a Title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.
  - ii. For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Illinois EPA or USEPA the records or results of such performance test and other data needed to determine emissions from an affected source.
- 9a. Pursuant to 40 CFR 63.465(a), except as provided in 40 CFR 63.465(f) and (g) for continuous web cleaning machines, each owner or operator of a batch vapor or in-line solvent cleaning machine complying with an idling emission limit standard in 40 CFR 63.463(b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii) shall determine the idling emission rate of the solvent cleaning machine using Reference Method 307 in appendix A of 40 CFR Part 63.

- b. Pursuant to 40 CFR 63.465(d), each owner or operator of a batch vapor or in-line solvent cleaning machine using a dwell to comply with 40 CFR 63.463 shall determine the appropriate dwell time for each part or parts basket using the procedure specified in Pursuant to 40 CFR 63.465(d)(1) and (d)(2).
  - i. Determine the amount of time for the part or parts basket to cease dripping once placed in the vapor zone. The part or parts basket used for this determination must be at room temperature before being placed in the vapor zone.
  - ii. The proper dwell time for parts to remain in the freeboard area above the vapor zone is no less than 35 percent of the time determined in 40 CFR 63.465(d)(1).
- 10a. At least 60 days prior to the actual date of testing, the Permittee shall submit a written test plan to the Illinois EPA for review and approval. This plan shall include as a minimum:
  - i. The name (or other identification) of the emission unit(s) to be tested and the name and address of the facility at which they are located;
  - ii. The name and address of the independent testing service(s) performing the tests, with the names of the individuals who may be performing sampling and analysis and their experience with similar tests;
  - iii. The specific determinations of emissions and/or performance which are intended to be made, including the site(s) in the ductwork or stack at which sampling will occur;
  - iv. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and minimum control performance, the values of operating parameters for the emission unit, including associated control equipment, at or within which compliance is intended to be shown, and the means by which the operating parameters will be determined;
- b.
  - i. The Permittee shall provide the Illinois EPA with written notification of testing at least thirty (30) days prior to testing to enable the Illinois EPA to have an observer present. This notification shall include the name of emission unit(s) to be tested, scheduled date and time, and contact person with telephone number.
  - ii. If testing is delayed, the Permittee shall promptly notify the Illinois EPA by facsimile, at least 5 days prior to the scheduled date of testing or immediately, if the delay occurs in the 5 days prior to the scheduled date. This notification shall also include the new date and time for testing, if set, or a separate notification shall be sent with this information when it is set.
- c. The Permittee shall submit the Test Report for this testing,

accompanied by a cover letter stating whether or not compliance was shown, to the Illinois EPA without delay, within 30 days after the results are compiled, but no later than sixty (60) days after the date of testing or sampling. The Test Report shall include as a minimum:

- i. General information describing the test, including the name and identification of the emission source which was tested, date of test, names of personnel performing the tests, and Illinois EPA observers, if any;
  - ii. A summary of results;
  - iii. Description of test procedures, including description of sampling points, test equipment, and test schedule;
  - iv. Detailed description of test conditions, including:
    - A. Process information, i.e., process rate, aggregate type, fuel type, and firing rate.
    - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
  - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- 11a. Pursuant to 40 CFR 63.463(e), each owner or operator of a solvent cleaning machine complying with 40 CFR 63.463(b), (c), (g), or (h) shall comply with the requirements specified in 40 CFR 63.463(e)(1) through (4).
- i. Conduct monitoring of each control device used to comply with 40 CFR 63.463 as provided in 40 CFR 63.466.
  - ii. Determine during each monitoring period whether each control device used to comply with these standards meets the requirements specified in 40 CFR 63.463(e)(2)(i) through (xi).
    - A. If a freeboard refrigeration device is used to comply with these standards, the owner or operator shall ensure that the chilled air blanket temperature (in °F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.
    - B. If a reduced room draft is used to comply with these standards, the owner or operator shall comply with the requirements specified in 40 CFR 63.463(e)(2)(ii)(A) and (e)(2)(ii)(B).
      - I. Ensure that the flow or movement of air across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time as measured using the

procedures in 40 CFR 63.466(d).

- II. Establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in 40 CFR 63.466(d).
- C. If an idling-mode cover is used to comply with these standards, the owner or operator shall comply with the requirements specified in 40 CFR 63.463(e)(2)(iv)(A) and (e)(2)(iv)(B).
  - I. Ensure that the cover is in place whenever parts are not in the solvent cleaning machine and completely covers the cleaning machine openings when in place.
  - II. Ensure that the idling-mode cover is maintained free of cracks, holes, and other defects.
- D. If a dwell is used to comply with these standards, the owner or operator shall comply with the requirements specified in 40 CFR 63.463(e)(2)(v)(A) and (e)(2)(v)(B).
  - I. Determine the appropriate dwell time for each type of part or parts basket, or determine the maximum dwell time using the most complex part type or parts basket, as described in 40 CFR 63.465(d).
  - II. Ensure that, after cleaning, each part is held in the solvent cleaning machine freeboard area above the vapor zone for the dwell time determined for that particular part or parts basket, or for the maximum dwell time determined using the most complex part type or parts basket.
- iii. If any of the requirements of 40 CFR 63.463(e)(2) are not met, determine whether an exceedance has occurred using the criteria in 40 CFR 63.463(e)(3)(i) and (e)(3)(ii).
  - A. An exceedance has occurred if the requirements of 40 CFR 63.463(e)(2)(ii)(B), (e)(2)(iii)(A), (e)(2)(iv)(A), (e)(2)(v), (e)(2)(vi)(B), (e)(2)(vi)(C), (e)(2)(vii)(B), or (e)(2)(vii)(C) have not been met.
  - B. An exceedance has occurred if the requirements of 40 CFR 63.463(e)(2)(i), (e)(2)(ii)(A), (e)(2)(iii)(B), (e)(2)(iv)(B), (e)(2)(vi)(A), or (e)(2)(vii)(A) have not been met and are not corrected within 15 days of detection. Adjustments or repairs shall be made to the solvent cleaning system or control device to reestablish required levels. The parameter must be remeasured immediately upon adjustment or repair and demonstrated to be within required limits.
- iv. The owner or operator shall report all exceedances and all

corrections and adjustments made to avoid an exceedance as specified in 40 CFR 63.468(h).

- b. Pursuant to 40 CFR 63.466(a)(1), except as provided in 40 CFR 63.466(g), each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the equipment standards in 40 CFR 63.463(b)(1)(i), (b)(2)(i), (c)(1)(i), (c)(2)(i), (g)(1), or (g)(2) shall conduct monitoring and record the results on a weekly basis for the control devices, as appropriate, specified in 40 CFR 63.466(a)(1) through (5). If a freeboard refrigeration device is used to comply with these standards, the owner or operator shall use a thermometer or thermo couple to measure the temperature at the center of the air blanket during the idling mode.
- c. Pursuant to 40 CFR 63.466(b), except as provided in 40 CFR 63.466(g), each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the equipment standards of 40 CFR 63.463(b)(1)(i), (b)(2)(i), (c)(1)(i), or (c)(2)(i) shall conduct monitoring and record the results on a monthly basis for the control devices, as appropriate, specified in 40 CFR 63.466(b)(1) and (b)(2).
  - i. If a cover (working-mode, downtown-mode, and/or idling mode cover) is used to comply with these standards, the owner or operator shall conduct a visual inspection to determine if the cover is opening and closing properly, completely covers the cleaning machine openings when closed, and is free of cracks, holes, and other defects.
  - ii. If a dwell is used, the owner or operator shall determine the actual dwell time by measuring the period of time that parts are held within the freeboard area of the solvent cleaning machine after cleaning.
- d. Pursuant to 40 CFR 63.466(c), except as provided in 40 CFR 63.466(g), each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the equipment or idling standards in 40 CFR 63.463 shall monitor the hoist speed as described in 40 CFR 63.466(c)(1) through (c)(4).
  - i. The owner or operator 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).
  - ii. The monitoring shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the owner or operator may begin monitoring the hoist speed quarterly.
  - iii. If an exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to monthly until another year of compliance without an exceedance is demonstrated.
  - iv. If an owner or operator can demonstrate to the Illinois EPA's or USEPA's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per

minute), the required monitoring frequency is quarterly, including during the first year of compliance.

- e. Pursuant to 40 CFR 63.466(d), except as provided in 40 CFR 63.466(g), each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the equipment standards in 40 CFR 63.463(b)(1)(i), (b)(2)(i), (c)(1)(i), or (c)(2)(i) using a reduced room draft shall conduct monitoring and record the results as specified in 40 CFR 63.466(d)(1) or (d)(2).
  - i. If the reduced room draft is maintained by controlling room parameters (i.e., redirecting fans, closing doors and windows, etc.), the owner or operator shall conduct an initial monitoring test of the windspeed and of room parameters, quarterly monitoring of windspeed, and weekly monitoring of room parameters as specified in 40 CFR 63.466(d)(1)(i) and (d)(1)(ii).
    - A. Measure the windspeed within 6 inches above the top of the freeboard area of the solvent cleaning machine using the procedure specified in 40 CFR 63.466(d)(1)(i)(A) through (d)(1)(i)(D).
      - I. Determine the direction of the wind current by slowly rotating a velometer or similar device until the maximum speed is located.
      - II. Orient a velometer in the direction of the wind current at each of the four corners of the machine.
      - III. Record the reading for each corner.
      - IV. Average the values obtained at each corner and record the average wind speed.
    - B. Monitor on a weekly basis the room parameters established during the initial compliance test that are used to achieve the reduced room draft.
  - ii. If an enclosure (full or partial) is used to achieve a reduced room draft, the owner or operator shall conduct an initial monitoring test and thereafter, monthly monitoring tests of the windspeed within the enclosure using the procedure specified in 40 CFR 63.466 (d)(2)(i) and (d)(2)(ii) and a monthly visual inspection of the enclosure to determine if it is free of cracks, holes and other defects.
    - A. Determine the direction of the wind current in the enclosure by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located.
    - B. Record the maximum wind speed.
- f. Pursuant to 40 CFR 63.466(f), Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the idling emission

limit standards of 40 CFR 63.463(b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii) shall comply with the requirements specified in 40 CFR 63.466(f)(1) and (f)(2).

- i. If using controls listed in 40 CFR 63.466(a) through (e), the owner or operator shall comply with the monitoring frequency requirements in 40 CFR 63.466(a) through (e).
  - ii. If using controls not listed in 40 CFR 63.466(a) through (e), the owner or operator shall establish the monitoring frequency for each control and submit it to the Illinois EPA or USEPA for approval in the initial test report.
- 12a. Pursuant to 40 CFR 63.467(a), each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the provisions of 40 CFR 63.463 shall maintain records in written or electronic form specified in 40 CFR 63.467(a)(1) through (7) for the lifetime of the machine.
- i. Owner's manuals, or if not available, a 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 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. If a dwell is used to comply with the NESHAP standards, records of the tests required in 40 CFR 63.465(d) to determine an appropriate dwell time for each part or parts basket.
  - iv. Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the idling emission limit standards of 40 CFR 63.463(b)(1)(ii), (b)(2)(ii), (c)(1)(ii), or (c)(2)(ii) shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test.
  - v. Records of the halogenated HAP solvent content for each solvent used in a solvent cleaning machine subject to the provisions of 40 CFR 63 Subpart T.
- b. Each owner or operator of a batch vapor or in-line solvent cleaning machine complying with 40 CFR 63.463 shall maintain records specified in 40 CFR 63.467(b)(1) through (b)(4) either in electronic or written form for a period of 5 years.
- i. The results of control device monitoring required under 40 CFR 63.466.
  - ii. 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.

- iii. Estimates of annual solvent consumption for each solvent cleaning machine.
- 13a. 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 Vapor Degreaser #2;
  - ii. The amount of cleaning solvent added to Vapor Degreaser #2 (lbs/month and tons/year); and
  - iii. Monthly and annual HAP emissions from Vapor Degreaser #2, with supporting calculations (tons/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) 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.
- 14a. Pursuant to 40 CFR 63.468(d), each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the provisions of 40 CFR 63.463 shall submit to the Illinois EPA or USEPA an initial statement of compliance for each solvent cleaning machine. For existing sources, this report shall be submitted to the Illinois EPA or USEPA no later than 150 days after the compliance date specified in 40 CFR 63.460(d). For new sources, this report shall be submitted to the Illinois EPA or USEPA no later than 150 days after startup or May 1, 1995, whichever is later. This statement shall include the requirements specified in 40 CFR 63.468(d)(1) through (d)(6).
- i. The name and address of the owner or operator.
  - ii. The address (i.e., physical location) of the solvent cleaning machine(s).
  - iii. A list of the control equipment used to achieve compliance for each solvent cleaning machine.
  - iv. For each piece of control equipment required to be monitored, a list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date.
  - v. Conditions to maintain the wind speed requirements of 40 CFR 63.463(e)(2)(ii), if applicable..
  - vi. Each owner or operator of a solvent cleaning machine complying

with the idling emission limit standards of 40 CFR 63.463(b)(1)(ii), (b)(2)(ii), (c)(1)(ii), and (c)(2)(ii) shall submit a test report for tests of idling emissions meeting the specifications in Method 307 of appendix A to 40 CFR 63 Subpart T. This report shall comply with the requirements specified in 40 CFR 63.468(d)(6)(i) through (d)(6)(iv).

- A. This test must be on the same specific model cleaner used at the source. The test can be done by the owner or operator of the affected machine or can be supplied by the vendor of that solvent cleaning machine or a third party.
  - B. This report must clearly state the monitoring parameters, monitoring frequency and the delineation of exceedances for each parameter.
  - C. If a solvent cleaning machine vendor or third party test report is used to demonstrate compliance, it shall include the following for the solvent cleaning machine tested: Name of person(s) or company that performed the test, model name, the date the solvent cleaning machine was tested, serial number, and a diagram of the solvent cleaning machine tested.
  - D. If a solvent cleaning machine vendor or third party test report is used, the owner or operator of the solvent cleaning machine shall comply with the requirements specified in either 40 CFR 63.468(d)(6)(iv)(A) and (d)(6)(iv)(B).
    - I. Submit a statement by the solvent cleaning machine vendor that the unit tested is the same as the unit the report is being submitted for.
    - II. Demonstrate to the Illinois EPA's or USEPA's satisfaction that the solvent emissions from the solvent cleaning machine for which the test report is being submitted are equal to or less than the solvent emissions from the solvent cleaning machine in the vendor test report.
- b. Pursuant to 40 CFR 63.468(f), each owner or operator of a batch vapor or in-line solvent cleaning machine complying with the provisions of 40 CFR 63.463 shall submit an annual report by February 1 of the year following the one for which the reporting is being made. This report shall include the requirements specified in 40 CFR 63.468(f)(1) through (f)(3).
- i. A signed statement from the facility 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)."
  - ii. An estimate of solvent consumption for each solvent cleaning

machine during the reporting period.

- iii. The reports required under 40 CFR 63.468(f) and (g) can be combined into a single report for each facility.
- c. Pursuant to 40 CFR 63.468(h), each owner or operator of a batch vapor or in-line solvent cleaning machine shall submit an exceedance report to the Illinois EPA or USEPA semiannually except when, the Illinois EPA or USEPA 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 follow a quarterly reporting format until a request to reduce reporting frequency under 40 CFR 63.468(i) is approved. 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 applicable information in 40 CFR 63.468(h)(1) through (3).
- i. 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.
  - ii. If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.
  - 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.
- d. Pursuant to 40 CFR 63.468(i), an owner or operator who is required to submit an exceedance report on a quarterly (or more frequent) basis may reduce the frequency of reporting to semiannual if the conditions in 40 CFR 63.468(i)(1) through (i)(3) are met.
- i. The source has demonstrated a full year of compliance without an exceedance.
  - ii. The owner or operator continues to comply with all relevant recordkeeping and monitoring requirements specified 40 CFR 63 Subpart A (General Provisions) and in 40 CFR 63 Subpart T.
  - iii. The Illinois EPA or USEPA does not object to a reduced frequency of reporting for the affected source as provided in 40 CFR 63.10(e)(3)(iii).
15. If there is an exceedance of or 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/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.

16. 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  
2009 Mall Street  
Collinsville, Illinois 62234

The OPERATING permit application is DENIED because the Illinois Environmental Protection Act, Sections 9 and 39.5, and 35 Ill. Adm. Code 201.160 might be violated.

Pursuant to Section 201.160, an operating permit may not be issued until the equipment has been constructed and tested in accordance with applicable conditions in this construction permit. The Illinois EPA suggests that you reapply for an operating permit after NSPS testing has been performed and the test report submitted.

It should be noted that during the analysis of this permit application, it was determined that your facility now has permitted emissions of a single HAP (perchloroethylene) greater than 10 tons per year and will be classified as a major source under the Clean Air Act Permit Program (CAAPP). To avoid the CAAPP permitting requirements, you may want to consider requesting lower emission limits of emissions of perchloroethylene in your Federally Enforceable State Operating Permit (FESOP).

If you elect to not limit emissions of perchloroethylene to less than 10 tons per year, then you must submit a CAAPP application within 12 months after commencing operation of Vapor Degreaser #2, in accordance with Section 39.5(5)(x) of the Illinois Environmental Protection Act. The necessary application forms are available on the Illinois EPA's website at <http://www.epa.state.il.us/air/caapp/permit-forms.html>.

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

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

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

DES:RBS:jws

**cc: Region 3**