

Facility ID: 0641180089 Issuance type: Title V Draft Permit

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part III" and before "I. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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## Part II - Specific Facility Terms and Conditions

### a State and Federally Enforceable Section

1. None

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### b State Only Enforceable Section

1. The following insignificant emissions units are located at this facility:

B002 - boiler #1;  
B003 - boiler #2;  
Z001 - boiler #3;  
Z002 - parts washers;  
Z004 - space heater #1;  
Z005 - space heater #2;  
Z007 - maintenance operations and other trivial activities;  
Z008 - roadway/parking lot emissions.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and / or control requirements contained within a permit to install for the emissions unit.

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0641180089 Emissions Unit ID: L002 Issuance type: Title V Draft Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u>  | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u>                       |
|--|--------------------------------------|--|
| conveyorized #32 trichloroethylene vapor degreaser with freeboard chiller/dwell time | OAC rule 3745-21-09(O)(4)            | control measures   |
|  | 40 CFR Part 63, Subpart T            | See A.I.2 below.<br>design and control device requirements<br>See A.I.2 below. |

2. Additional Terms and Conditions

- a. The permittee shall utilize a freeboard refrigeration device pursuant to 40 CFR 63.463(e)(2)(i) and shall ensure that the chilled air blanket temperature (in degrees F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point (56.6 degrees F for TCE).
- b. The permittee shall comply with the following requirements pursuant to 40 CFR 63.463(e)(2)(v):
  - 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 the "Testing Requirements" section of this permit.
  - 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.
- c. The permittee shall ensure that the solvent cleaning machine utilizes an idling and downtime mode cover that 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. The cover must be able to be readily opened or closed, must completely cover the cleaning machine openings when in place, and must be free of cracks, holes and other defects.
- d. The solvent cleaning machine shall have a freeboard ratio of 0.75 or greater.
- e. The solvent 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.
- f. The solvent 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.

- g. The solvent 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.
- h. The solvent cleaning machine shall have a primary condenser.

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## II. Operational Restrictions

1. The permittee shall meet all of the following required work and operational practices:
  - a. Cover(s) for 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(s) to not be in place.
  - b. The parts baskets or the parts being cleaned in solvent 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 meter per minute (3 feet per minute) or less.
  - c. 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).
  - d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).
  - e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
  - f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
  - g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
  - h. When solvent is added or drained from the 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.
  - i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.
  - j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).
  - k. 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 must not allow liquid solvent to drain from the container.
  - l. Sponges, fabric, wood, and paper products shall not be cleaned.

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## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall monitor the hoist speed as described below:
  - a. 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).
  - b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.
  - c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.
  - d. If the permittee can demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) in the initial compliance report that the hoist speed 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.
2. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:
  - a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.
  - b. 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.
  - c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.
  - d. Records of the tests required as outlined in the "Testing Requirements" section of this permit to determine an appropriate dwell time for each part or parts basket.
3. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:
  - a. The results of control device monitoring required in this section of the permit.
  - b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - c. Estimates of annual TCE consumption for the solvent cleaning machine.

4. The permittee shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test. These records shall be maintained for the lifetime of the solvent cleaning machine.
5. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.
6. The permittee shall conduct monitoring and record the results on a monthly basis for the idling-mode cover by conducting 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.
7. The permittee shall conduct monitoring and record the results on a monthly basis of the actual dwell time. The permittee 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.

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#### IV. Reporting Requirements

1. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:
  - a. A signed statement from the facility owner or their 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 pursuant to 40 CFR 60.463 (d) (10)."
  - b. An estimate of solvent consumption during the reporting period.
2. The permittee shall submit an exceedance report on a semiannual basis. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.
3. The permittee shall submit an exceedance report on a semiannual basis. If the appropriate dwell time for each type part or parts basket or the maximum dwell time was not determined and if after cleaning, each part was not held in the solvent cleaning machine freeboard area above the vapor zone for the proper or the maximum dwell time for that particular part or parts basket, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.

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#### V. Testing Requirements

1. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:
  - a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

$$PTE_i = H_i \times W_i \times SA_i$$

Where:

$PTE_i$  = the potential to emit for the solvent cleaning machine  $i$  (kilograms solvent per year).

$H_i$  = hours of operation for solvent cleaning machine  $i$  (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

Wi = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

SALi = solvent/air interface area of solvent cleaning machine i (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

$$SAI = 2.2 * (Vol)^{0.6}$$

Where:

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

c. Sum the PTEi for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

2. The permittee shall determine the appropriate dwell time for each part or parts basket using the following procedures:
  - a. 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.
  - b. 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 paragraph (a) of this section.

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VI. **Miscellaneous Requirements**

1. None

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**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|--------------------------------------|--|
| 2. <b>Additional Terms and Conditions</b>     |                                      |  |
| 1. None                                       |                                      |  |

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

- 1. None

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IV. **Reporting Requirements**

- 1. None

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V. **Testing Requirements**

- 1. None

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VI. **Miscellaneous Requirements**

- 1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0641180089 Emissions Unit ID: L003 Issuance type: Title V Draft Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u>  | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u>   |
|--|--------------------------------------|--|
| conveyorized #42 trichloroethylene vapor degreaser with freeboard chiller/dwell time | OAC rule 3745-21-09(O)(4)            | control measures   |
|  | 40 CFR Part 63, Subpart T            | See A.I.2 below.<br>design and control device requirements |
|  |                                      | See A.I.2 below.   |

2. **Additional Terms and Conditions**

- a. The permittee shall utilize a freeboard refrigeration device pursuant to 40 CFR 63.463(e)(2)(i) and shall ensure that the chilled air blanket temperature (in degrees F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point (56.6 degrees F for TCE).
- b. The permittee shall comply with the following requirements pursuant to 40 CFR 63.463(e)(2)(v):
  - 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 the "Testing Requirements" section of this permit.
  - 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.

- c. The permittee shall ensure that the solvent cleaning machine utilizes an idling and downtime mode cover that 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. The cover must be able to be readily opened or closed, must completely cover the cleaning machine openings when in place, and must be free of cracks, holes and other defects.
- d. The solvent cleaning machine shall have a freeboard ratio of 0.75 or greater.
- e. The solvent 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.
- f. The solvent 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.
- g. The solvent 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.
- h. The solvent cleaning machine shall have a primary condenser.

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#### II. Operational Restrictions

- 1. The permittee shall meet all of the following required work and operational practices:
  - a. Cover(s) for 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(s) to not be in place.
  - b. The parts baskets or the parts being cleaned in solvent 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 meter per minute (3 feet per minute) or less.
  - c. 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).
  - d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).
  - e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
  - f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
  - g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
  - h. When solvent is added or drained from the 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.
  - i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.
  - j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).
  - k. 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 must not allow liquid solvent to drain from the container.
  - l. Sponges, fabric, wood, and paper products shall not be cleaned.

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#### III. Monitoring and/or Record Keeping Requirements

- 1. The permittee shall monitor the hoist speed as described below:
  - a. 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).
  - b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.
  - c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.
  - d. If the permittee can demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) in the initial compliance report that the hoist speed 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.

2. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:
  - a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.
  - b. 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.
  - c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.
  - d. Records of the tests required as outlined in the "Testing Requirements" section of this permit to determine an appropriate dwell time for each part or parts basket.
3. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:
  - a. The results of control device monitoring required in this section of the permit.
  - b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - c. Estimates of annual TCE consumption for the solvent cleaning machine.
4. The permittee shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test. These records shall be maintained for the lifetime of the solvent cleaning machine.
5. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.
6. The permittee shall conduct monitoring and record the results on a monthly basis for the idling-mode cover by conducting 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.
7. The permittee shall conduct monitoring and record the results on a monthly basis of the actual dwell time. The permittee 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.

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#### IV. Reporting Requirements

1. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:
  - a. A signed statement from the facility owner or their 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 pursuant to 40 CFR 60.463 (d) (10)."
  - b. An estimate of solvent consumption during the reporting period.
2. The permittee shall submit an exceedance report on a semiannual basis. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.
3. The permittee shall submit an exceedance report on a semiannual basis. If the appropriate dwell time for each type part or parts basket or the maximum dwell time was not determined and if after cleaning, each part was not held in the solvent cleaning machine freeboard area above the vapor zone for the proper or the maximum dwell time for that particular part or parts basket, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.

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V. **Testing Requirements**

1. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:
  - a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:
 
$$PTE_i = H_i \times W_i \times SAI_i$$
 Where:
    - PTE<sub>i</sub> = the potential to emit for the solvent cleaning machine i (kilograms solvent per year).
    - H<sub>i</sub> = hours of operation for solvent cleaning machine i (hours per year).
    - = 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.
    - W<sub>i</sub> = the working mode uncontrolled emission rate (kilograms per square meter per hour).
    - = 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.
    - = 1.12 kilograms per square meter per hour for in-line cleaning machines.
 SAI<sub>i</sub> = solvent/air interface area of solvent cleaning machine i (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.
    - b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:
 
$$SAI = 2.2 * (Vol)^{0.6}$$
 Where:
      - SAI = the solvent/air interface area (square meters).
      - Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).
    - c. Sum the PTE<sub>i</sub> for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.
2. The permittee shall determine the appropriate dwell time for each part or parts basket using the following procedures:
  - a. 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.
  - b. 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 paragraph (a) of this section.

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VI. **Miscellaneous Requirements**

1. None

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**Facility ID: 0641180089 Emissions Unit ID: L003 Issuance type: Title V Draft Permit**

**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|--------------------------------------|--|
|---|--------------------------------------|--|

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0641180089 Emissions Unit ID: L004 Issuance type: Title V Draft Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|--------------------------------------|--|
|---|--------------------------------------|--|

|  |                           |                  |
|--|---------------------------|------------------|
| conveyorized #54 trichloroethylene vapor degreaser with freeboard chiller/dwell time | OAC rule 3745-21-09(O)(4) | control measures |
|--|---------------------------|------------------|

See A.I.2 below.

40 CFR Part 63, Subpart T

design and control device requirements

See A.I.2 below.

**2. Additional Terms and Conditions**

- a. The permittee shall utilize a freeboard refrigeration device pursuant to 40 CFR 63.463(e)(2)(i) and shall ensure that the chilled air blanket temperature (in degrees F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point (56.6 degrees F for TCE).
- b. The permittee shall comply with the following requirements pursuant to 40 CFR 63.463(e)(2)(v):
  - 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 the "Testing Requirements" section of this permit.
  - 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.
- c. The permittee shall ensure that the solvent cleaning machine utilizes an idling and downtime mode cover that 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. The cover must be able to be readily opened or closed, must completely cover the cleaning machine openings when in place, and must be free of cracks, holes and other defects.
- d. The solvent cleaning machine shall have a freeboard ratio of 0.75 or greater.
- e. The solvent 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.
- f. The solvent 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.
- g. The solvent 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.
- h. The solvent cleaning machine shall have a primary condenser.

[Go to the top of this document](#)[Go to the top of Part III for this Emissions Unit](#)**\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*****II. Operational Restrictions**

1. The permittee shall meet all of the following required work and operational practices:
  - a. Cover(s) for 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(s) to not be in place.
  - b. The parts baskets or the parts being cleaned in solvent 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 meter per minute (3 feet per minute) or less.
  - c. 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).
  - d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).
  - e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
  - f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
  - g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
  - h. When solvent is added or drained from the 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.
  - i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.
  - j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).
  - k. 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 must not allow liquid solvent to drain from the container.
  - l. Sponges, fabric, wood, and paper products shall not be cleaned.

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**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall monitor the hoist speed as described below:
  - a. 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).
  - b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.
  - c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.
  - d. If the permittee can demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) in the initial compliance report that the hoist speed 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.
2. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:
  - a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.
  - b. 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.
  - c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.
  - d. Records of the tests required as outlined in the "Testing Requirements" section of this permit to determine an appropriate dwell time for each part or parts basket.
3. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:
  - a. The results of control device monitoring required in this section of the permit.
  - b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - c. Estimates of annual TCE consumption for the solvent cleaning machine.
4. The permittee shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test. These records shall be maintained for the lifetime of the solvent cleaning machine.
5. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.
6. The permittee shall conduct monitoring and record the results on a monthly basis for the idling-mode cover by conducting 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.
7. The permittee shall conduct monitoring and record the results on a monthly basis of the actual dwell time. The permittee 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.

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**IV. Reporting Requirements**

1. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:
  - a. A signed statement from the facility owner or their 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 pursuant to 40 CFR 60.463 (d) (10)."
  - b. An estimate of solvent consumption during the reporting period.
2. The permittee shall submit an exceedance report on a semiannual basis. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.

3. The permittee shall submit an exceedance report on a semiannual basis. If the appropriate dwell time for each type part or parts basket or the maximum dwell time was not determined and if after cleaning, each part was not held in the solvent cleaning machine freeboard area above the vapor zone for the proper or the maximum dwell time for that particular part or parts basket, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.

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V. **Testing Requirements**

1. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:
  - a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

$$PTE_i = H_i \times W_i \times SAI_i$$

Where:

$PTE_i$  = the potential to emit for the solvent cleaning machine  $i$  (kilograms solvent per year).

$H_i$  = hours of operation for solvent cleaning machine  $i$  (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

$W_i$  = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

$SAI_i$  = solvent/air interface area of solvent cleaning machine  $i$  (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent/air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

$$SAI = 2.2 * (Vol)^{0.6}$$

Where:

$SAI$  = the solvent/air interface area (square meters).

$Vol$  = the cleaning capacity of the solvent cleaning machine (cubic meters).

c. Sum the  $PTE_i$  for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

2. The permittee shall determine the appropriate dwell time for each part or parts basket using the following procedures:
  - a. 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.
  - b. 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 paragraph (a) of this section.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0641180089 Emissions Unit ID: L004 Issuance type: Title V Draft Permit

**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

**I. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|--------------------------------------|--|
| <b>2. Additional Terms and Conditions</b>     |                                      |  |
| 1. None                                       |                                      |  |

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**II. Operational Restrictions**

- 1. None

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**III. Monitoring and/or Record Keeping Requirements**

- 1. None

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**IV. Reporting Requirements**

- 1. None

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**V. Testing Requirements**

- 1. None

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**VI. Miscellaneous Requirements**

- 1. None

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Facility ID: 0641180089 Emissions Unit ID: L005 Issuance type: Title V Draft Permit

**A. State and Federally Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

**I. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u>  | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u>   |
|--|--------------------------------------|--|
| conveyorized #33 trichloroethylene vapor degreaser with freeboard chiller/dwell time | OAC rule 3745-21-09(O)(4)            | control measures<br>See A.I.2 below.                       |
|  | 40 CFR Part 63, Subpart T            | design and control device requirements<br>See A.I.2 below. |

**2. Additional Terms and Conditions**

- a. The permittee shall utilize a freeboard refrigeration device pursuant to 40 CFR 63.463(e)(2)(i) and shall ensure that the chilled air blanket temperature (in degrees F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point (56.6 degrees F for TCE).
- b. The permittee shall comply with the following requirements pursuant to 40 CFR 63.463(e)(2)(v):
  - 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 the "Testing Requirements" section of this permit.
  - 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.
- c. The permittee shall ensure that the solvent cleaning machine utilizes an idling and downtime mode cover that 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. The cover must be able to be readily opened or closed, must completely cover the cleaning machine openings when in place, and must be free of cracks, holes and other defects.
- d. The solvent cleaning machine shall have a freeboard ratio of 0.75 or greater.
- e. The solvent 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.
- f. The solvent 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.
- g. The solvent 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.
- h. The solvent cleaning machine shall have a primary condenser.

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**II. Operational Restrictions**

- 1. The permittee shall meet all of the following required work and operational practices:
  - a. Cover(s) for 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(s) to not be in place.
  - b. The parts baskets or the parts being cleaned in solvent 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 meter per minute (3 feet per minute) or less.
  - c. 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).
  - d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).
  - e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has

stopped.

- f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
- g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
- h. When solvent is added or drained from the 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.
- i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.
- j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).
- k. 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 must not allow liquid solvent to drain from the container.
- l. Sponges, fabric, wood, and paper products shall not be cleaned.

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### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall monitor the hoist speed as described below:
  - a. 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).
  - b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.
  - c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.
  - d. If the permittee can demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) in the initial compliance report that the hoist speed 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.
2. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:
  - a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.
  - b. 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.
  - c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.
  - d. Records of the tests required as outlined in the "Testing Requirements" section of this permit to determine an appropriate dwell time for each part or parts basket.
3. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:
  - a. The results of control device monitoring required in this section of the permit.
  - b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - c. Estimates of annual TCE consumption for the solvent cleaning machine.
4. The permittee shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test. These records shall be maintained for the lifetime of the solvent cleaning machine.
5. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.
6. The permittee shall conduct monitoring and record the results on a monthly basis for the idling-mode cover by conducting 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.
7. The permittee shall conduct monitoring and record the results on a monthly basis of the actual dwell time. The permittee 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.

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### IV. Reporting Requirements

1. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:
  - a. A signed statement from the facility owner or their 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 pursuant to 40 CFR 60.463 (d) (10)."

- b. An estimate of solvent consumption during the reporting period.
2. The permittee shall submit an exceedance report on a semiannual basis. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
- The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - If no exceedance has occurred, a statement to that effect shall be submitted.
3. The permittee shall submit an exceedance report on a semiannual basis. If the appropriate dwell time for each type part or parts basket or the maximum dwell time was not determined and if after cleaning, each part was not held in the solvent cleaning machine freeboard area above the vapor zone for the proper or the maximum dwell time for that particular part or parts basket, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
- The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - If no exceedance has occurred, a statement to that effect shall be submitted.

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V. **Testing Requirements**

1. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:
- Determine the potential to emit for each individual solvent cleaning machine using the following equation:  

$$PTE_i = H_i \times W_i \times SAI_i$$

Where:

$PTE_i$  = the potential to emit for the solvent cleaning machine  $i$  (kilograms solvent per year).

$H_i$  = hours of operation for solvent cleaning machine  $i$  (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

$W_i$  = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

$SAI_i$  = solvent/air interface area of solvent cleaning machine  $i$  (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent/air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

    - Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:  

$$SAI = 2.2 * (Vol)^{0.6}$$

Where:

$SAI$  = the solvent/air interface area (square meters).

$Vol$  = the cleaning capacity of the solvent cleaning machine (cubic meters).
    - Sum the  $PTE_i$  for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.
2. The permittee shall determine the appropriate dwell time for each part or parts basket using the following

procedures:

- a. 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.
- b. 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 paragraph (a) of this section.

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VI. **Miscellaneous Requirements**

- 1. None

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**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

|   | <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|---|--------------------------------------|--|
| 2. <b>Additional Terms and Conditions</b> |   |                                      |  |
| 1.  | None  |                                      |  |

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II. **Operational Restrictions**

- 1. None

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III. **Monitoring and/or Record Keeping Requirements**

- 1. None

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IV. **Reporting Requirements**

- 1. None

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V. **Testing Requirements**

- 1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0641180089 Emissions Unit ID: L007 Issuance type: Title V Draft Permit

A. **State and Federally Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u>  | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u>       |
|--|--------------------------------------|--|
| conveyorized #53 trichloroethylene vapor degreaser with freeboard chiller/dwell time | OAC rule 3745-21-09(O)(4)            | control measures<br><br>See A.I.2 below.                       |
|  | 40 CFR Part 63, Subpart T            | design and control device requirements<br><br>See A.I.2 below. |

2. **Additional Terms and Conditions**

- a. The permittee shall utilize a freeboard refrigeration device pursuant to 40 CFR 63.463(e)(2)(i) and shall ensure that the chilled air blanket temperature (in degrees F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point (56.6 degrees F for TCE).
- b. The permittee shall comply with the following requirements pursuant to 40 CFR 63.463(e)(2)(v):
  - 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 the "Testing Requirements" section of this permit.
  - 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.
- c. The permittee shall ensure that the solvent cleaning machine utilizes an idling and downtime mode cover that 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. The cover must be able to be readily opened or closed, must completely cover the cleaning machine openings when in place, and must be free of cracks, holes and other defects.
- d. The solvent cleaning machine shall have a freeboard ratio of 0.75 or greater.
- e. The solvent 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.
- f. The solvent 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.
- g. The solvent 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.
- h. The solvent cleaning machine shall have a primary condenser.

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**II. Operational Restrictions**

1. The permittee shall meet all of the following required work and operational practices:
  - a. Cover(s) for 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(s) to not be in place.
  - b. The parts baskets or the parts being cleaned in solvent 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 meter per minute (3 feet per minute) or less.
  - c. 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).
  - d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).
  - e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
  - f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
  - g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
  - h. When solvent is added or drained from the 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.
  - i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.
  - j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).
  - k. 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 must not allow liquid solvent to drain from the container.
  - l. Sponges, fabric, wood, and paper products shall not be cleaned.

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**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall monitor the hoist speed as described below:
  - a. 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).
  - b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.
  - c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.
  - d. If the permittee can demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) in the initial compliance report that the hoist speed 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.
2. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:
  - a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.
  - b. 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.
  - c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.
  - d. Records of the tests required as outlined in the "Testing Requirements" section of this permit to determine an appropriate dwell time for each part or parts basket.
3. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:
  - a. The results of control device monitoring required in this section of the permit.
  - b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - c. Estimates of annual TCE consumption for the solvent cleaning machine.
4. The permittee shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test. These records shall be maintained for the lifetime of the solvent cleaning machine.
5. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket

during the idling mode.

6. The permittee shall conduct monitoring and record the results on a monthly basis for the idling-mode cover by conducting 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.
7. The permittee shall conduct monitoring and record the results on a monthly basis of the actual dwell time. The permittee 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.

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#### IV. Reporting Requirements

1. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:
  - a. A signed statement from the facility owner or their 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 pursuant to 40 CFR 60.463 (d) (10)."
  - b. An estimate of solvent consumption during the reporting period.
2. The permittee shall submit an exceedance report on a semiannual basis. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.
3. The permittee shall submit an exceedance report on a semiannual basis. If the appropriate dwell time for each type part or parts basket or the maximum dwell time was not determined and if after cleaning, each part was not held in the solvent cleaning machine freeboard area above the vapor zone for the proper or the maximum dwell time for that particular part or parts basket, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.

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#### V. Testing Requirements

1. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:
  - a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

$$PTE_i = H_i \times W_i \times SA_i$$

Where:

$PTE_i$  = the potential to emit for the solvent cleaning machine  $i$  (kilograms solvent per year).

$H_i$  = hours of operation for solvent cleaning machine  $i$  (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

$W_i$  = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

SAI<sub>i</sub> = solvent/air interface area of solvent cleaning machine i (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

$$SAI = 2.2 * (Vol)^{0.6}$$

Where:

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

c. Sum the PTE<sub>i</sub> for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

2. The permittee shall determine the appropriate dwell time for each part or parts basket using the following procedures:
  - a. 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.
  - b. 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 paragraph (a) of this section.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0641180089 Emissions Unit ID: L007 Issuance type: Title V Draft Permit

**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

|  | <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|--|---|--------------------------------------|--|
|--|---|--------------------------------------|--|

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

- 1. None

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V. **Testing Requirements**

- 1. None

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0641180089 Issuance type: Title V Draft Permit

**Part III - Terms and Conditions for Emissions Units**

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Facility ID: 0641180089 Emissions Unit ID: L008 Issuance type: Title V Draft Permit

**A. State and Federally Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u>   | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u>   |
|---|--------------------------------------|--|
| conveyorized #61 "Borden" trichloroethylene vapor degreaser with freeboard chiller/dwell time | OAC rule 3745-21-09(O)(4)            | control measures   |
|   | 40 CFR Part 63, Subpart T            | See A.I.2 below.<br>design and control device requirements |
|   |                                      | See A.I.2 below.   |

2. **Additional Terms and Conditions**

- a. The permittee shall utilize a freeboard refrigeration device pursuant to 40 CFR 63.463(e)(2)(i) and shall ensure that the chilled air blanket temperature (in degrees F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point (56.6 degrees F for TCE).
- b. The permittee shall comply with the following requirements pursuant to 40 CFR 63.463(e)(2)(v):
  - 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 the "Testing Requirements" section of this permit.
  - 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.
- c. The permittee shall ensure that the solvent cleaning machine utilizes an idling and downtime mode cover that 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. The cover must be able to be readily opened or closed, must completely cover the cleaning machine openings when in place, and must be free of cracks, holes and other defects.

- d. The solvent cleaning machine shall have a freeboard ratio of 0.75 or greater.
- e. The solvent 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.
- f. The solvent 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.
- g. The solvent 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.
- h. The solvent cleaning machine shall have a primary condenser.

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#### II. Operational Restrictions

1. The permittee shall meet all of the following required work and operational practices:
  - a. Cover(s) for 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(s) to not be in place.
  - b. The parts baskets or the parts being cleaned in solvent 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 meter per minute (3 feet per minute) or less.
  - c. 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).
  - d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).
  - e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
  - f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
  - g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
  - h. When solvent is added or drained from the 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.
  - i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.
  - j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).
  - k. 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 must not allow liquid solvent to drain from the container.
  - l. Sponges, fabric, wood, and paper products shall not be cleaned.

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#### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall monitor the hoist speed as described below:
  - a. 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).
  - b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.
  - c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.
  - d. If the permittee can demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) in the initial compliance report that the hoist speed 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.
2. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:
  - a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.
  - b. 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.

- c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.
  - d. Records of the tests required as outlined in the "Testing Requirements" section of this permit to determine an appropriate dwell time for each part or parts basket.
- 3. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:
  - a. The results of control device monitoring required in this section of the permit.
  - b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - c. Estimates of annual TCE consumption for the solvent cleaning machine.
- 4. The permittee shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test. These records shall be maintained for the lifetime of the solvent cleaning machine.
- 5. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.
- 6. The permittee shall conduct monitoring and record the results on a monthly basis for the idling-mode cover by conducting 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.
- 7. The permittee shall conduct monitoring and record the results on a monthly basis of the actual dwell time. The permittee 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.

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#### IV. Reporting Requirements

- 1. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:
  - a. A signed statement from the facility owner or their 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 pursuant to 40 CFR 60.463 (d) (10)."
  - b. An estimate of solvent consumption during the reporting period.
- 2. The permittee shall submit an exceedance report on a semiannual basis. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.
- 3. The permittee shall submit an exceedance report on a semiannual basis. If the appropriate dwell time for each type part or parts basket or the maximum dwell time was not determined and if after cleaning, each part was not held in the solvent cleaning machine freeboard area above the vapor zone for the proper or the maximum dwell time for that particular part or parts basket, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
  - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including 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 acceptable levels.
  - b. If no exceedance has occurred, a statement to that effect shall be submitted.

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#### V. Testing Requirements

- 1. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A

facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:

a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

$$PTE_i = H_i \times W_i \times SAI_i$$

Where:

PTE<sub>i</sub> = the potential to emit for the solvent cleaning machine i (kilograms solvent per year).

H<sub>i</sub> = hours of operation for solvent cleaning machine i (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

W<sub>i</sub> = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

SAI<sub>i</sub> = solvent/air interface area of solvent cleaning machine i (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

$$SAI = 2.2 * (Vol)^{0.6}$$

Where:

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

c. Sum the PTE<sub>i</sub> for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

2. The permittee shall determine the appropriate dwell time for each part or parts basket using the following procedures:

a. 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.

b. 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 paragraph (a) of this section.

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VI. **Miscellaneous Requirements**

1. None

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**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u>   | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u> |
|---|--------------------------------------|--|
| conveyorized #61 "Borden" trichloroethylene vapor degreaser with freeboard chiller/dwell time | OAC rule 3745-31-05 (PTI 17-301)     | less stringent than MACT standards                       |

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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III. **Monitoring and/or Record Keeping Requirements**

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0641180089 Emissions Unit ID: L009 Issuance type: Title V Draft Permit

**A. State and Federally Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u>  | <u>Applicable Rules/Requirements</u>                       | <u>Applicable Emissions Limitations/Control Measures</u>                               |
|--|--|--|
| conveyorized "new degreaser"-methylene chloride degreaser meeting idling limits for new in-line vapor degreasers | OAC rule 3745-21-09(O)(4)<br><br>40 CFR Part 63, Subpart T | control measures<br><br>See A.I.2 below.<br><br>design and control device requirements |

See A.I.2 below.

2. **Additional Terms and Conditions**

- a. The permittee shall demonstrate that the solvent cleaning machine can achieve and maintain an idling emission limit of 0.10 kilograms per hour per square meter (0.021 pound per hour per square foot) of solvent/air interface area as determined using the procedures in 40 CFR 63.465(a) and 40 CFR Part 63, Appendix A.
- b. The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:
- c. The solvent cleaning machine shall be designed or operated to meet the following control equipment or technique requirements:
  - i. Use of an idling and downtime mode cover that 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. The cover must be able to be readily opened or closed, must completely cover the cleaning machine openings when in place, and must be free of cracks, holes and other defects.

OR

- ii. Use of reduced room draft that ensures that the flow or movement 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 measured using the procedure described in the "Monitoring and/or Recordkeeping Requirements" section of this permit. The permittee shall 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 the "Monitoring and/or Recordkeeping Requirements" section of this permit.
- d. The solvent cleaning machine shall have a freeboard ratio of 0.75 or greater.
- e. The solvent 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.
- f. The solvent 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.
- g. The solvent 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.
- h. The solvent cleaning machine shall have a primary condenser.

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II. **Operational Restrictions**

1. The permittee shall control air disturbances across the solvent cleaning machine opening(s) by incorporating the following control equipment or techniques:
    - a. Cover(s) for 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(s) to not be in place.
- OR
- b. The permittee shall employ a reduced room draft that ensures 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 described in the "Monitoring and/or Recordkeeping Requirements" section of this permit. The permittee shall also 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 the "Monitoring and/or Recordkeeping Requirements" section of this permit.
  2. 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).
  3. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (appropriate District Office or local air agency).
  4. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
  5. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.

6. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
7. When solvent is added or drained from the 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.
8. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (appropriate District Office or local air agency) to achieve the same or better results as those recommended by the manufacturer.
9. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (appropriate District Office or local air agency).
10. 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 must not allow liquid solvent to drain from the container.
11. Sponges, fabric, wood, and paper products shall not be cleaned.

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### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall monitor the hoist speed as described below:
  - a. 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).
  - b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.
  - c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.
  - d. If the permittee can demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) in the initial compliance report that the hoist speed 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.
2. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:
  - a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.
  - b. 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.
  - c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.
3. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:
  - a. The results of control device monitoring required in this section of the permit.
  - b. Information on the actions taken to comply with 40 CFR 63.463(e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - c. Estimates of annual methylene chloride consumption for the solvent cleaning machine.
4. The permittee shall maintain records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test. These records shall be maintained for the lifetime of the solvent cleaning machine.
5. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.
6. The permittee shall conduct monitoring and record the results on a monthly basis for the idling-mode cover by conducting 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.

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### IV. Reporting Requirements

1. The permittee shall submit an initial notification report as soon as practicable before the construction or

- reconstruction is planned to commence. This report shall include all of the information required in 40 CFR 63.5(d)(1) of Subpart A, with the following revisions and additions:
- a. The report shall include a brief description of the solvent cleaning machine type (batch vapor, batch cold, vapor in-line, or cold in-line), solvent/air interface area, and existing controls.
  - b. The report shall include the anticipated compliance approach for the solvent cleaning machine.
  - c. The report shall include an estimate of the annual methylene chloride consumption for the solvent cleaning machine in lieu of the requirements of 40 CFR 63.5(d)(1)(ii)(H), Subpart A.
2. The permittee shall submit an initial statement of compliance no later than 150 days after startup. Each initial statement of compliance shall contain the following:
    - a. The name and address of the permittee.
    - b. The address (i.e., physical location) of the solvent cleaning machine.
    - c. A list of the control equipment used to achieve compliance.
    - d. 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 for each piece of control equipment required to be monitored.
  3. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:
    - a. A signed statement from the facility owner or their 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 pursuant to 40 CFR 60.463(d)(10)."
    - b. An estimate of solvent consumption during the reporting period.
  4. The permittee shall submit an exceedance report on a semiannual basis. If the idling-mode cover cover did not completely cover the cleaning machine openings when in place whenever parts were not in the solvent cleaning machine and/or if the cover had cracks, holes or other defects and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e)(3)(iii) of Subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
    - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463(e) and (f) including 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 acceptable levels.
    - b. If no exceedance has occurred, a statement to that effect shall be submitted.
  5. The permittee shall submit an exceedance report on a semiannual basis. If the temperature of the chilled air blanket for the freeboard refrigeration device, measured at the center of the air blanket, was greater than 30% of the solvent's boiling point, and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e)(3)(iii) of Subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
    - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463(e) and (f) including 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 acceptable levels.
    - b. If no exceedance has occurred, a statement to that effect shall be submitted.
  6. The permittee shall submit a test report for tests of idling emissions meeting the specifications in Method 307 of 40 CFR Part 63, Appendix A. This report shall comply with the following requirements:
    - a. The test must be conducted on the same specific model solvent cleaning machine used at the facility. The test can be done by the permittee of the affected machine or can be supplied by the vendor of that solvent cleaning machine or a third party. If a solvent cleaning machine vendor or a third party test report is used to demonstrate compliance, the following requirements shall be met:
      - i. The report 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.
      - ii. The permittee shall comply with the following requirements:

- (a) 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.
  - (b) Demonstrate to the satisfaction of the Director (appropriate District Office or local air agency) that the methylene chloride emissions from the solvent cleaning machine for which the test report is being submitted are equal to or less than the methylene chloride emissions from the solvent cleaning machine in the vendor test report.
- b. The report must clearly state the monitoring parameters, monitoring frequency and the delineation of exceedances for each parameter.

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V. **Testing Requirements**

1. The permittee shall determine the idling emission rate of the solvent cleaning machine using Reference Method 307 in 40 CFR Part 63, Appendix A.
2. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:
  - a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:
 
$$PTE_i = H_i \times W_i \times SAI_i$$
 Where:
 

PTE<sub>i</sub> = the potential to emit for the solvent cleaning machine i (kilograms solvent per year).

H<sub>i</sub> = hours of operation for solvent cleaning machine i (hours per year) = 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

W<sub>i</sub> = the working mode uncontrolled emission rate (kilograms per square meter per hour) = 1.12 kilograms per square meter per hour for in-line cleaning machines.

SAI<sub>i</sub> = solvent/air interface area of solvent cleaning machine i (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.
  - b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:
 
$$SAI = 2.2 * (Vol)^{0.6}$$
 Where:
 

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).
  - c. Sum the PTE<sub>i</sub> for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

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VI. **Miscellaneous Requirements**

1. None

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**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

**I. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u>  | <u>Applicable Rules/Requirements</u> | <u>Applicable Emissions Limitations/Control Measures</u>   |
|--|--------------------------------------|--|
| conveyorized "new degreaser"-methylene chloride degreaser meeting idling limits for new in-line vapor degreasers | OAC rule 3745-31-05 (PTI 17-1484)    | 5.0 lbs/hr of methylene chloride<br>9.9 tpy of methylene chloride<br><br>0.5 lb/hr of isopropyl alcohol<br>1.0 tpy of isopropyl alcohol<br><br>0.06 lb/hr of nitroethane<br>0.1 tpy of nitroethane |

**2. Additional Terms and Conditions**

- a. The conveyorized degreaser shall employ equipment, such as a drying tunnel or rotating (tumbling) basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor.
- b. The following safety switches shall be operated and maintained:
  - i. a condenser flow switch and thermostat or any other device which shuts off the sump heat if the condenser coolant is either not circulating or too warm;
  - ii. a spray safety switch which shuts off the spray pump if the vapor level drops below any fixed spray nozzle; and
  - iii. a vapor level control thermostat or any other device which shuts off the sump heat when the vapor level rises.
- c. The conveyorized degreaser shall be equipped with covers that shall be used to close off the entrance and exit of the unit when it is not in use.
- d. The conveyorized degreaser shall be equipped with a refrigerated chiller. The chiller water shall be maintained below 40 degrees Fahrenheit at all times during operation of this degreaser, except during maintenance.

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**II. Operational Restrictions**

- 1. There shall be no workplace fans operated near the degreaser opening, and exhaust ventilation shall not exceed 65 CFM per square foot of degreaser opening, unless a higher rate is necessary to meet Occupational Safety and Health Administration requirements.
- 2. Openings shall be minimized during operation so that entrances and exits silhouette workloads with an average clearance between the parts and the edge of the degreaser openings of less than 10% of the width of the opening.
- 3. Downtime covers shall be provided for closing off the entrance and exit during shutdown hours.
- 4. Carry-out emissions shall be minimized by the following practices:
  - a. parts shall be racked so that solvent drains freely from the parts and is not trapped; and
  - b. vertical conveyor speed shall not exceed 11 feet per minute.
- 5. Waste solvent shall only be stored in sealed containers in accordance with hazardous waste regulations.
- 6. Solvent leaks shall be repaired immediately or the degreaser must be shut down.
- 7. The degreaser shall be operated so that water cannot be visually detected in the solvent exiting the water separator.
- 8. Downtime covers shall be in place over entrances and exits of the conveyorized degreaser at all times when the conveyors and exhausts are not being operated.
- 9. No materials shall be cleaned that are porous and/or absorbent.

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**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain records of all types of solvent employed in the conveyorized degreaser, including the following:
  - a. each date that solvent was added to the degreaser and the total number of gallons added;
  - b. the percent, by volume, of isopropyl alcohol contained in each batch of solvent added to the degreaser;
  - c. the percent, by volume, of nitroethane contained in each batch of solvent added to the degreaser;
  - d. the percent, by volume, of methylene chloride contained in each batch of solvent added to the degreaser;
  - e. the total number of gallons of each solvent added to the degreaser on a per-month basis; and
  - f. the total number of gallons of each solvent added to the degreaser on a per-year basis (January 1 through December 31).
2. The permittee shall maintain, on a daily basis, records of the total number of hours the degreaser was operated.
3. The permittee shall record the total consumption of each solvent on a daily basis, in gallons and in pounds.
4. The permittee shall record the average hourly consumption of each solvent for each day, in gallons and in pounds.
5. The permittee shall maintain records of all control equipment maintenance.

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#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. an identification of each day during which the average hourly methylene chloride emissions exceeded 5.0 lbs/hr, and the actual average hourly methylene chloride emissions for each such day;
  - b. an identification of each day during which the average hourly isopropyl alcohol emissions exceeded 0.5 lb/hr, and the actual average hourly isopropyl alcohol emissions for each such day; and
  - c. an identification of each day during which the average hourly nitroethane emissions exceeded 0.06 lb/hr, and the actual average hourly nitroethane emissions for each such day.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.
3. The permittee shall also submit annual reports which specify the total methylene chloride, isopropyl alcohol, and nitroethane emissions from this emissions unit for the previous calendar year, in tons. These reports shall be submitted by January 31 of each year.

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#### V. Testing Requirements

1. Compliance with the emission limitations in section B.1.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:
 

5.0 lbs/hr of methylene chloride

Applicable Compliance Method:

Compliance shall be demonstrated based upon the following equation:

$$Hmc = (Ch / h) * (Wmc) * (Dmc)$$

where:

Hmc = hourly emissions of methylene chloride, lb/hr  
 Ch = daily amount of solvent consumed, gallons (B.III.3, above)  
 h = total number of hours degreaser was in operation, hours/day (B.III.2, above)  
 Wmc = percentage of methylene chloride in solvent, gallons/gallon (B.III.1.d)  
 Dmc = density of methylene chloride, lb/gallon = 11.1 lb/gal
  - b. Emission Limitation:
 

9.9 tpy of methylene chloride

Applicable Compliance Method:

Compliance shall be demonstrated based upon the following equation:

$$Ymc = (Cy) * (Wmc) * (Dmc) / 2000$$

where:

Ymc = annual emissions of methylene chloride, tons/yr  
 Cy = annual amount of solvent consumed, gallons/year (B.III.1.f, above)  
 Wmc = percentage of methylene chloride in solvent, gallons/gallon (B.III.1.d)  
 Dmc = density of methylene chloride, lb/gallon = 11.1 lb/gal

c. Emission Limitation:

0.5 lb/hr of isopropyl alcohol

Applicable Compliance Method:

Compliance shall be demonstrated based upon the following equation:

$$H_i = (C_h / h) * (W_i) * (D_i)$$

where:

H<sub>i</sub> = hourly emissions of isopropyl alcohol, lb/hr  
 C<sub>h</sub> = daily amount of solvent consumed, gallons (B.III.3, above)  
 h = total number of hours degreaser was in operation, hours/day (B.III.2, above)  
 W<sub>i</sub> = percentage of isopropyl alcohol in solvent, gallons/gallon (B.III.1.b)  
 D<sub>i</sub> = density of isopropyl alcohol, lb/gallon = 6.59 lb/gal

d. Emission Limitation:

1.0 tpy of isopropyl alcohol

Applicable Compliance Method:

Compliance shall be demonstrated based upon the following equation:

$$Y_i = (C_y) * (W_i) * (D_i) / 2000$$

where:

Y<sub>i</sub> = annual emissions of isopropyl alcohol, ton/yr  
 C<sub>y</sub> = annual amount of solvent consumed, gallons/year (B.III.1.f, above)  
 W<sub>i</sub> = percentage of isopropyl alcohol in solvent, gallons/gallon (B.III.1.b)  
 D<sub>i</sub> = density of isopropyl alcohol, lb/gallon = 6.59 lb/gal

e. Emission Limitation:

0.06 lb/hr of nitroethane

Applicable Compliance Method:

Compliance shall be demonstrated based upon the following equation:

$$H_n = (C_h / h) * (W_n) * (D_n)$$

where:

H<sub>n</sub> = hourly emissions of nitroethane, lb/hr  
 C<sub>h</sub> = daily amount of solvent consumed, gallons (B.III.3, above)  
 h = total number of hours degreaser was in operation, hours/day (B.III.2, above)  
 W<sub>n</sub> = percentage of nitroethane in solvent, gallons/gallon (B.III.1.c)  
 D<sub>n</sub> = density of nitroethane, lb/gallon = 8.76 lb/gal

f. Emission Limitation:

0.1 tpy of nitroethane

Applicable Compliance Method:

Compliance shall be demonstrated based upon the following equation:

$$Y_n = (C_y) * (W_n) * (D_n) / 2000$$

where:

Y<sub>n</sub> = annual emissions of nitroethane, ton/yr  
 C<sub>y</sub> = annual amount of solvent consumed, gallons/year (B.III.1.f, above)  
 W<sub>n</sub> = percentage of nitroethane in solvent, gallons/gallon (B.III.1.c)  
 D<sub>n</sub> = density of methylene chloride, lb/gallon = 8.76 lb/gal

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VI. **Miscellaneous Requirements**

1. None