Facility ID: 1677011034 Issuance type: Final State Permit To Operate

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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 II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

   (a) None.

2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

   (a) None.

A. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
new Miraclean model 355 dry-to-dry perchloroethylene dry cleaning machine with refrigerated condenser and carbon adsorber	OAC rule 3745-31-05 (PTI 16-1189)	139 gallons of perchloroethylene per rolling, 12-month period 0.94 tpy of perchloroethylene
	40 CFR Part 63, Subparts A and M	See A.2.a and A.2.b below.
	OAC rule 3745-21-09(AA)	See A.2.a and A.2.b below.

2. **Additional Terms and Conditions**

   (a) The dryer shall be equipped with or vented to a refrigerated vapor condenser whereby there is no exhaust of perchloroethylene vapors to the ambient air throughout the drying cycle, except for when the dryer's door is momentarily opened during loading or unloading.
   Any exhaust from the dryer shall be vented through a carbon adsorber which emits no more than 100 parts per million by volume of perchloroethylene at any time.

B. **Operational Restrictions**

1. The waste from any diatomaceous earth filter which has been used to filter perchloroethylene shall contain no more than 25 percent by weight VOC, as determined under OAC rule 3745-21-10(J).

2. The waste from any distillation operation (solvent still) which has been used to distill perchloroethylene shall contain no more than 60 percent by weight VOC, as determined under OAC rule 3745-21-10(J).

3. Any disposable filter cartridge which has been used to filter perchloroethylene shall be drained in the filter housing for at least 24 hours before being discarded.

4. All equipment must be maintained so as to prevent the leaking of perchloroethylene liquid and prevent perceptible vapor leaks from gaskets, seals, ducts, and related equipment. Any equipment which is leaking perchloroethylene liquid or has a perceptible vapor leak shall not be operated until the leak is repaired.

5. The permittee shall store all perchloroethylene and wastes that contain perchloroethylene in solvent tanks or solvent containers with no perceptible leaks.

6. The door of each dry cleaning machine shall be closed at all times except to transfer articles to and from the machine.

7. The dry cleaning machine shall be operated and maintained according to manufacturer's specifications and recommendations.

8. The outlet gas-vapor stream temperature of the condenser shall be a maximum of 45 degrees Fahrenheit.

9. Perchloroethylene shall not be vented or released to the atmosphere while the dry cleaning machine drum is rotating.

10. The machine shall be operated with a diverter valve to prevent air drawn into the dry cleaning machine (when the machine door is open) from passing through the refrigerated condenser.

11. Each carbon adsorber shall not be bypassed to vent or release any air-perchloroethylene gas-vapor stream to the atmosphere at any time.

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

1. A leak detection and repair program to inspect all dry cleaning equipment for leaks that are obvious from sight, smell, or touch shall be conducted. Pursuant to OAC rule 3745-21-09(AA)(1)(e), any equipment found to be leaking perchloroethylene liquid or vapor is not to be operated until the leak is repaired. Leaks are to be repaired within 24 hours after being found, or repair parts ordered within 2 working days after detecting a leak that needs repair parts. Repair parts shall be installed within 5 working days after they are received. In accordance with 40 CFR Part 63 Subpart M, compliance with this requirement shall be determined through biweekly visual inspection of the following components while the dry cleaning system is operating:

   a. hose and pipe connections, fittings, coupling and valves;
   b. machine door gaskets and seatings:
   c. filter gaskets and seatings;
   d. pumps;
   e. solvent tanks and containers;
   f. water separators;
   g. filter sludge recovery;
   h. distillation valves
   i. diverter valves;
   j. saturated lint from the lint basket;
   k. cartridge filters and housings;
   l. muck cookers;
   m. stills; and
   n. exhaust dampers.

2. The temperature of the air-perchloroethylene gas-vapor stream on the outlet side of the refrigerated condenser shall be measured weekly with a temperature sensor. The temperature sensor shall be used according to the manufacturer's instructions and shall be designed to measure a temperature of 45 degrees Fahrenheit to an accuracy of plus or minus 2 degrees Fahrenheit. If the outlet temperature is higher than 45 degrees Fahrenheit, adjustments or repairs shall be made to meet that value. Repair parts shall be ordered within 2 working days after detecting a violation that needs repair parts. Repair parts shall be installed within 5 working days after they are received.

3. The concentration of perchloroethylene in the gas-vapor stream at the outlet of the carbon adsorber shall be measured weekly with a colorimetric detector tube while the machine is venting to that carbon adsorber at the end of the last dry cleaning cycle prior to desorption of that carbon adsorber. The colorimetric detector tube must measure perchloroethylene at a concentration of 100 ppmv in air to an accuracy of plus or minus 25 ppmv. The colorimetric detector tube shall be used according to the manufacturer's instructions. The sampling port shall be easily accessible and shall be at least 8 stack diameters downstream and 2 stack diameters upstream from any flow disturbance, such as a bend or other fitting.

4. If any monitored concentration exceeds its allowable parameters, repairs or adjustments must be made to meet those values. Repair parts shall be ordered within 2 working days after detecting a leak that needs repair parts. Repair parts shall be installed within 5 working days after they are received.

5. The following records shall be kept on site in a log for a period of not less than 5 years, and shall be made available upon request:

   a. receipts of all perchloroethylene purchases;

   b. the volume of perchloroethylene purchased each month as recorded from perchloroethylene purchases (If no perchloroethylene is purchased during a given month, then the entry in to the log shall be zero gallons.);

   c. the calculation and result of the yearly perchloroethylene consumption (rolling, 12-month summation), to be determined on the first day of each month;

   d. the results of all visual inspections, including the dates when the dry cleaning system components are inspected for leaks and the name or location of dry cleaning system components where leaks are detected;

   e. the dates of repair and records of written or verbal orders for repair parts; and

   f. the results and dates of all equipment monitoring required by this permit.

6. The following records shall be kept for a period of not less than 3 years:

   a. control equipment maintenance; and

   b. the amount of fabric dry cleaned with perchloroethylene, from January 1 to December 31 of each year, in pounds.

7. A copy of the design specifications and the operating manuals for each dry cleaning system and each emission control device located at the dry cleaning facility shall be retained on site and be made available upon request.

D. **Reporting Requirements**

1. The permittee shall submit annual reports which contain the following information:

   a. a summary of the results of all tests conducted to determine compliance with the VOC content limitations for the waste from a diatomaceous earth filter and the waste from a solvent still; and

   b. the annual usage of perchloroethylene, in gallons.

   The annual reports shall be submitted by January 31 of each year.

2. If the yearly perchloroethylene solvent consumption limit, calculated pursuant to section F.2, is exceeded by the rolling, annual perchloroethylene consumption calculation required by the recordkeeping requirements section of this permit, then the permittee shall submit a signed statement as required by 40 CFR 63.324(c).

E. **Testing Requirements**

1. Compliance with the mass emission limit listed in section A.1 of 0.94 ton of perchloroethylene per rolling, 12-month period is demonstrated by multiplying the total yearly consumption of perchloroethylene in gallons (required in section C.4.c) times the specific density of perchloroethylene (0.00675 ton/gallon).

F. **Miscellaneous Requirements**

1. If the total yearly consumption of perchloroethylene exceeds 2100 gallons per year, this facility becomes a major source and must comply with the requirements for a major source per 40 CFR 63, Subpart M, within 180 days of the exceedance determination.

2. The yearly perchloroethylene solvent consumption limit is based on the yearly solvent consumption and is calculated according to 40 CFR 63.323(d).