

ARTICLE 3: SOURCE-SPECIFIC EMISSION STANDARDS

SECTION 3.03 PERCHLOROETHYLENE DRY CLEANERS

Adopted 08/09/90 (670)

Revised 01/09/92 (716), 11/09/95 (823)

- (a) **Applicability.** This section applies to all dry cleaning systems using perchloroethylene.
- (b) **General Requirements.** It shall be unlawful for any person to cause or allow the operation of a perchloroethylene dry cleaning system unless all the air-perchloroethylene gas-vapor stream is vented through a carbon adsorber or refrigerated condenser. Dry cleaning machines installed after September 21, 1993 shall use a refrigerated condenser.
- (c) **General Operation and Maintenance Requirements.** It shall be unlawful for any person to cause or allow the operation of any perchloroethylene dry cleaning system unless all of the following conditions are met:
 - (1) Conduct a visual inspection of the dry cleaning system at least once a week for perceptible leaks. All perceptible leaks shall be repaired within 24 hours of detection. If repair parts must be ordered to repair a leak, the parts shall be ordered within 2 working days of detecting the leak, and the repair parts shall be installed within 5 working days after receipt;
 - (2) Drain cartridge filters in their housing or other sealed container for at least 24 hours before discarding the cartridges;
 - (3) Close the door of each dry cleaning machine except when transferring articles to or from the machine;
 - (4) Store all perchloroethylene, and wastes containing perchloroethylene, in a closed container; and
 - (5) Operate and maintain the dry cleaning system according to the manufacturer's specifications and recommendations.
- (d) **Requirements for Refrigerated Condensers.** It shall be unlawful for any person to cause or allow the operation of any perchloroethylene dry cleaning system using a refrigerated condenser unless all of the following conditions are met:
 - (1) The air temperature at the outlet of the refrigerated condenser installed on a dry-to-dry machine, dryer, or reclaimer must reach 45°F (7°C) or less during the cool-down period. Compliance shall be determined by continuously monitoring the outlet temperature during the cool-down period using a permanently installed temperature sensor that is accurate to within 2°F (1°C);
 - (2) The difference between the air temperature at the inlet and outlet of a refrigerated condenser installed on a washer must be greater than or

equal to 20°F (11°C). Compliance shall be determined by continuously monitoring the inlet and outlet temperatures during the cool-down period using permanently installed temperature sensors that are accurate to within 2°F (1°C);

- (3) The refrigerated condenser shall be operated with a diverter valve that prevents air drawn into the dry cleaning machine from passing through the refrigerated condenser when the door of the machine is open; and
 - (4) The refrigerated condenser shall not vent the air-perchloroethylene gas-vapor stream while the dry cleaning machine drum is rotating or, if installed on a washer, until the washer door is opened.
- (e) **Requirements for Carbon Adsorbers.** It shall be unlawful for any person to cause or allow the operation of any perchloroethylene dry cleaning system using a carbon adsorber unless all of the following conditions are met:
- (1) The concentration of perchloroethylene at the exhaust of the carbon adsorber shall not exceed 100 ppm while the dry cleaning machine is venting to the carbon adsorber at the end of the last dry cleaning cycle prior to desorption of the carbon adsorber; and
 - (2) Compliance shall be determined by weekly measurements of the concentration of perchloroethylene at the outlet of the carbon adsorber using a colorimetric detector tube that is accurate to within 25 ppm. If the dry cleaning system was constructed on or before December 8, 1991, monitoring shall commence by September 23, 1996. If the dry cleaning system was constructed after December 8, 1991, monitoring shall commence immediately.
- (f) **Recordkeeping.** Each dry cleaning facility shall have an Operation and Maintenance Plan as described in Section 5.05(c) of Regulation I that includes the following records:
- (1) A record of dates and results of all monitoring, inspections, and repair of the dry cleaning system.
 - (2) If a refrigerated condenser is used on a dry-to-dry machine, dryer, or reclaimer, a weekly record of the air temperature measured at the outlet of the refrigerated condenser during the cool-down period to verify compliance with Section 3.03(d)(1).
 - (3) If a refrigerated condenser is used on a washer, a weekly record of the difference between the air temperatures measured at the inlet and outlet of the refrigerated condenser to verify compliance with Section 3.03(d)(2).
 - (4) A record of the volume of perchloroethylene purchased each month including receipts of perchloroethylene purchases and a calculation of the amount of perchloroethylene purchased over the previous 12 months.

- (g) **Prohibitions.** It shall be unlawful to operate a multi-machine dry cleaning operation in which washing and drying are performed in different machines (transfer system) after December 31, 1999.
- (h) **Major Source Requirements.** If the dry cleaning system is located at a facility that emits 10 tons or more of perchloroethylene annually, the facility must meet the additional requirements set forth in 40 CFR Part 63, Subpart M.

SECTION 3.07 ETHYLENE OXIDE STERILIZERS AND AERATORS

Adopted 01/09/92 (715)

- (a) The provisions of this rule do not apply if the facility-wide usage of ethylene oxide is less than 11 kilograms (25 pounds per year).
- (b) It shall be unlawful for any person to cause or allow the emission of ethylene oxide from the operation of any sterilizer or aerator unless ethylene oxide emissions from each device meet the following control efficiencies:

Facility-Wide Usage of Ethylene Oxide kg/yr (<i>lbs/yr</i>)	Exhaust Streams to be Controlled	Control Efficiency (%)
≥ 11 and ≤ 272 (≥ 25 and ≤ 600)	Sterilizer	99.0
	Aerator	90.0
> 272 and $\leq 2,270$ (> 600 and $\leq 5,000$)	Sterilizer	99.9
	Aerator	95.0
$> 2,270$ ($> 5,000$)	Sterilizer	99.9
	Aerator	99.0

- (c) It shall be unlawful for any person to cause or allow the operation of an ethylene oxide sterilizer or aerator unless the maximum concentration of ethylene oxide is less than 10 ppm as measured 1 centimeter away from any portion of the equipment other than the exhaust.
- (d) It shall be unlawful for any person to cause or allow the discharge of ethylene oxide in the sterilizer exhaust vacuum pump working fluid to the wastewater stream.
- (e) Annual source tests shall be conducted in accordance with Section 3.07 of Regulation I to verify compliance with the requirements in this section.
- (f) The provisions of this section shall be met on the following schedule:
 - (1) Submit Notice of Construction by July 1, 1992; and
 - (2) Submit Progress Report by July 1, 1993; and
 - (3) Achieve Final Compliance by July 1, 1994.