

RECONSTRUCTION - For the purpose of Section 590, means the replacement of any components of a dry cleaning system to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new dry cleaning system.

RESIDENCE - Any dwelling or housing in which people reside excluding short-term housing that is occupied by the same person for a period of less than 180 days (such as a hotel room).

VAPOR LEAK - A perchloroethylene vapor concentration exceeding 25 parts per million by volume (50 parts per volume as methane) as indicated by a halogenated hydrocarbon detector or perchloroethylene gas analyzer.

590.3 Machine Design.

- a. 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 between September 21, 1993 and December 21, 2005 shall use a refrigerated condenser, and shall comply with 590.41(a).
- b. The owner or operator of each dry cleaning system installed after December 21, 2005, at an area source shall route the air-perchloroethylene gas-vapor stream contained within each dry cleaning machine through a refrigerated condenser and pass the air-perchloroethylene gas-vapor stream from inside the dry cleaning machine drum through a non-vented carbon absorber or equivalent control device immediately before the door of the dry cleaning machine is opened. The carbon absorber must be desorbed in accordance with manufacturer's instructions.
- c. All dry cleaning machines shall use a refrigerated condenser and a carbon adsorber as described in 590.2(b), and shall comply with 590.41(b) by July 28, 2008.

590.4 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:

590.41 Leak Detection and Repair

- a. Conduct a visual inspection of the dry cleaning system at least once a week for perceptible leaks while the system is operating.
- b. An inspection must include an examination of these components for condition and perceptible leaks
 1. Hose and pipe connections, fittings, couplings, and valves;

2. Door gaskets and seats;
 3. Filter gaskets and seats;
 4. Pumps;
 5. Solvent tanks and containers;
 6. Water separators;
 7. Muck cookers;
 8. Stills;
 9. Cartridge filter housings.
- c. Conduct vapor leak inspections monthly while the dry cleaning system is running using a halogenated hydrocarbon detector or perchloroethylene gas analyzer that is operated according to the manufacturer's instructions. The operator shall place the probe inlet at the surface of each component interface where leakage could occur and move it slowly along the interface periphery. Any inspection conducted according to this paragraph shall satisfy the requirements to conduct an inspection for perceptible leaks as described in 590.41(a).
- d. All perchloroethylene dry cleaning systems shall be in compliance with 590.41(c) by July 28, 2008.
- e. All perceptible and/or vapor 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.
- 590.42 Drain cartridge filters in their housing or other sealed container for at least 24 hours before discarding the cartridges;
- 590.43 Close the door of each dry cleaning machine except when transferring articles to or from the machine;
- 590.44 Store all perchloroethylene, and wastes containing perchloroethylene, in a closed container; and
- 590.45 Operate and maintain the dry cleaning system according to the manufacturer's specifications and recommendations.
- 590.46 Keep a copy on-site of the design specifications and operating manuals for all dry cleaning equipment.
- 590.47 Keep a copy on-site of the design specifications and operating manuals for all emission control devices.

590.5 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:

590.51 The air temperature at the outlet of the refrigerated condenser installed on a dry-to-dry machine 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);

590.52 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);

590.53 The refrigerated condenser shall be operated so that air drawn into the dry cleaning machine does not pass through the refrigerated condenser when the door of the machine is open; and

590.54 The refrigerated condenser shall not vent the air-perchloroethylene gas-vapor stream while the dry cleaning machine drum is rotating.

590.6 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:

590.61 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

590.62 Compliance shall be determined by weekly measurements of the concentration of perchloroethylene at the outlet of the carbon adsorber using a halogenated hydrocarbon detector or perchloroethylene gas analyzer that is accurate to within 25 ppm.

590.7 Recordkeeping. Each dry cleaning facility shall have an Operation and Maintenance Plan and the following records which shall be kept on-site and available for inspection upon request by the NWCAA.

590.71 A record of dates and results of all monitoring, inspections, and repair of the dry cleaning system.

590.72 If a refrigerated condenser is used on a dry-to-dry machine, a weekly record of the air temperature measured at the outlet of the

refrigerated condenser during the cool-down period to verify compliance with Subsection 590.51.

590.73 If a carbon adsorber is used on a dry cleaning system, a weekly record of outlet perchloroethylene concentration to verify compliance with 590.61.

590.74 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. All receipts of perchloroethylene purchases must be retained for 5 years.

590.8 Prohibitions.

- a. 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.
- b. After July 27, 2006 it shall be unlawful to install or reconstruct a dry cleaning system in a building with a residence.
- c. After December 21, 2020, it shall be unlawful to operate a dry cleaning system that is located in a building with a residence.

590.9 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.

590.10 New sources subject to Section 590 that begin operation after October 1, 2007 shall notify the NWCAA within thirty (30) days of start-up. This notice shall include the name and address of the facility, its owner and or operator, and a statement on the facility's status of compliance with this section.

PASSED: February 8, 1996 AMENDED: July 14, 2005, November 8, 2007

SECTION 600 - FOREWORD

600.1 Ambient air quality objectives are not to be confused with air quality standards, but are goals to be strived for. They are intended to describe a level of air quality which will:

600.11 Not degrade human health and safety.

600.12 Avoid injury to plant and animal life and property.

600.13 Be consistent with the economic and social well being of the area.

600.2 Objectives are designed to serve as a guide:

600.21 For the development of ambient and emission standards.

600.22 In the preparation of long and short range objectives for ambient and emission standards, and

600.23 For the election of air pollution control measures for existing and planned facilities which could create air pollution.

600.3 The adopted objectives are not intended to represent the ultimate in air quality achievement. As evidence accumulates on the effects of contaminants and as new and/or revised sampling and analytical procedures become available, present objectives and procedures may be revised and/or additional objectives and procedures may be established.

PASSED: January 8, 1969

SECTION 601 - APPLICATION OF OBJECTIVES

601.1 The NWCAA may employ any reasonable method or combination of methods such as area sampling, source sampling, emission evaluation and assessment of source contribution and effect.

601.2 Consistent with Section 600.1 of this Regulation, it is the intent of the NWCAA to establish emission standards such that emissions in one area will not contravene the objectives in another area.

SECTION 602 - AMBIENT AIR QUALITY AREAS

602.1 Air pollution potentials vary within the jurisdiction of the NWCAA with varying degrees of social and economic development. These factors in combination with topographic and meteorological elements tend to accentuate or reduce emission effects.

602.2 The ambient air quality goals are defined for three areas within the jurisdiction of the NWCAA.

- 602.21 Area #1 - predominantly used for timber and agricultural crops, farming and recreation. Habitation and industry sparse.
- 602.22 Area #2 - dwelling units, small farms, commercial and office buildings and stores.
- 602.23 Area #3 - primarily light and heavy industry.
- 602.4 County and city planning agencies shall make available to the NWCAA the delineation of the zoning status within their area of jurisdiction.

PASSED: January 8, 1969 AMENDED: April 14, 1993

SECTION 603 - AMBIENT AIR QUALITY OBJECTIVES

603.1	Particulates	#1	AREA #2	#3
603.11	Suspended Particulates (PM ₁₀) µg/m ³ Sampling period – 24 hrs			
	50% of annual values less than	40.	50.	65.
	84% of annual values less than	60.	75.	100.
603.12	Settleable Particulates g/m ² /mo Sampling Period - 30 days			
	50% of annual values less than	030.	045.	060.
	84% of annual values less than	035.	055.	120.
603.2	Sulfur Dioxide (ppm by volume) Sampling period - 24 hours			
	50% of annual values less than	0.1	0.1	0.15
	Sampling period - one hour			
	95% of annual values less than	0.25	0.30	0.40
603.3	Sulfur Acid Mist (mg/m ³) Sampling period - 24 hours			
	50% of annual values less than	0.1	0.1	0.15
603.4	Hydrogen Sulfide (ppm by volume) Sampling period - two hours			
	50% of annual values less than	0.04	0.06	0.10
603.5	Total Oxidants (ppm by volume) Sampling period - one hour			
	50% of annual values less than	0.1	0.15	0.15
603.6	Fluorides (ppm by volume as HF) Sampling period - 24 hours			
	50% of annual values less than	0.001	0.001	0.002
603.7	Carbon Monoxide (24 hour average)			

5 ppm

- 603.8 Smoke. The ambient air shall not contain visible smoke which is inconsistent with the economic or social well-being of the community or which will prevent enjoyment and use of property. The ambient air shall not contain materials in an amount such that the Coefficient of Haze will exceed 0.5 COH's per one thousand (1000) linear feet of air. The degree of haze present in the ambient air shall be referred to as the Soling Index.
- 603.9 Odorous Substances. The ambient air shall not contain odorous substances in such concentrations or of such duration as will threaten health or safety or prevent the enjoyment and use of property.
- 603.10 Radioactive Substances. The ambient air shall not contain any radioactive substances in concentrations which are deleterious, either directly or indirectly, to human health or which affect the economic or social well-being of the community.
- 603.11 Other Toxic or Deleterious Substances. The ambient air shall not contain toxic or deleterious substances, in addition to those specifically listed in these objectives, in concentrations and durations which have been demonstrated to adversely affect human health or well-being, or unreasonably and adversely affect plant or animal life.

PASSED: January 8, 1969 AMENDED: April 14, 1993