

SECTION 550 - PREVENTING PARTICULATE MATTER FROM BECOMING AIRBORNE

- 550.1 The owner or operator of a source or activity that generates fugitive dust, including, but not limited to, material handling, building construction or demolition, abrasive blasting, roadways and lots, shall employ reasonable precautions to prevent fugitive dust from becoming airborne and must maintain and operate the source or activity to minimize emissions.
- 550.2 It shall be unlawful for any person to cause or allow the emission of particulate matter which becomes deposited upon the property of others in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.
- 550.3 For this section, reasonable precautions may include, but are not limited to:
- (A) Applying and reapplying water as necessary on materials and/or surfaces (e.g., access roads, etc.);
 - (B) Using enclosed conveyors, containment, and covered containers when handling and transferring materials;
 - (C) Covering loads when transporting material;
 - (D) Limiting vehicle speed on unpaved surfaces;
 - (E) Paving or installing quarry spalls at exit aprons;
 - (F) Cleaning vehicle tires and undercarriages before exiting to paved public roadways; and
 - (G) Promptly cleaning material that has been tracked out onto paved public roadways.

PASSED: January 8, 1969 AMENDED: February 14, 1973, August 9, 1978, October 14, 1987, April 14, 1993, November 12, 1999, July 14, 2005, September 11, 2014

SECTION 560 - STORAGE OF ORGANIC LIQUID

- 560.1 A person shall not place, store or hold in any stationary tank, reservoir or other container of more than 40,000 gallons, any petroleum liquids or a tank greater than 6,000 gallons capacity or greater containing other organic liquids or solvents having a True Vapor Pressure of 1.5 pounds per square inch or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressure sufficient at all times to prevent hydrocarbon vapor or gas loss to the atmosphere, or is designed and equipped with one of the following vapor loss control devices, properly installed, in good working order and in operation:

- 560.11 A floating roof, consisting of a pontoon type or double-deck type roof, resting on the surface of the liquid contents and equipped with a closure seal, or seals, to close the space between the roof edge and tank wall. The control equipment provided for in this paragraph shall not be used if the gasoline or petroleum distillate has a True Vapor Pressure of 11.1 pounds per square inch or greater under actual storage conditions. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
- 560.12 A vapor recovery system, consisting of a vapor gathering system capable of collecting the hydrocarbon vapors and gases discharged and a vapor disposal system capable of processing such hydrocarbon vapors and gases so as to prevent their emission to the atmosphere and with all tank gauging devices gas-tight except when gauging or sampling is taking place.
- 560.13 Other equipment of equal efficiency, provided such equipment is submitted to and approved by the Control Officer.

PASSED: February 14, 1973 AMENDED: August 8, 1978, April 14, 1993

SECTION 570 - ASBESTOS CONTROL STANDARDS

570.1 The Board of Directors of the Northwest Clean Air Agency recognize that asbestos is a serious health hazard. Any asbestos fibers released into the air can be inhaled and can cause lung cancer, pleural mesothelioma, peritoneal mesothelioma or asbestosis. The Board has, therefore, determined that any asbestos emitted to the ambient air is air pollution. Because of the seriousness of the health hazard, the Board of Directors has adopted this regulation to control asbestos emissions from asbestos removal projects in order to protect the public health. In addition, the Board has adopted these regulations to coordinate with the EPA asbestos NESHAP, the OSHA asbestos regulation, the Washington Department of Labor and Industries asbestos regulations, the Washington Department of Ecology Dangerous Waste regulation, and the solid waste regulations of Island, Skagit and Whatcom Counties.

570.2 DEFINITIONS

AHERA BUILDING INSPECTOR - A person who has successfully completed the training requirements for a building inspector established by EPA Asbestos Model Accreditation Plan (40 CFR Part 763, Appendix C to Subpart E, I.B.3) and whose certification is current.

AHERA PROJECT DESIGNER - A person who has successfully completed the training requirements for an abatement project designer established by EPA regulations (40 CFR 763.90(g)) and whose certification is current.

ASBESTOS - The asbestiform varieties of actinolite, amosite (cummingtonite-grunerite), tremolite, chrysotile (serpentinite), crocidolite (riebeckite), or anthophyllite.

ASBESTOS-CONTAINING MATERIAL - Any material containing more than one percent asbestos as determined using the method specified in EPA regulations Appendix A, Subpart F, 40 CFR Part 763, Section I, Polarized Light Microscopy.

ASBESTOS-CONTAINING WASTE MATERIAL - Any waste that contains or is contaminated with asbestos-containing material. Asbestos-containing waste material includes asbestos waste from control equipment, materials used to enclose the work area during an asbestos project, asbestos-containing material collected for disposal, asbestos-contaminated waste, debris, containers, bags, protective clothing, or HEPA filters. Asbestos-containing waste material does not include samples of asbestos-containing material taken for testing or enforcement purposes.

ASBESTOS PROJECT - Any activity involving the abatement, renovation, demolition, removal, salvage, clean up, or disposal of asbestos-containing material, or any other action that disturbs or is likely to disturb any asbestos-containing material. It includes the removal and disposal of stored asbestos-containing material or asbestos-containing waste material. It does not include the application of duct tape, rewettable glass cloth, canvas, cement, paint, or other non-asbestos materials to seal or fill exposed areas where asbestos fibers may be released.

ASBESTOS SURVEY - A written report describing an inspection using the procedures contained in EPA regulations (40 CFR 763.86), or an alternate method that has received prior written approval from the Control Officer, to determine whether materials or structures to be worked on, renovated, removed, or demolished (including materials on the outside of structures) contain asbestos.

COMPETENT PERSON - A person who is capable of identifying asbestos hazards and selecting the appropriate asbestos control strategy, has the NWCAA to take prompt corrective measures to eliminate them, and has been trained and is currently certified in accordance with the standards established by the Washington State Department of Labor & Industries, the federal Occupational Safety & Health Administration, or the United States Environmental Protection Agency (whichever agency has jurisdiction).

COMPONENT - Any equipment, pipe, structural member, or other item covered or coated with, or manufactured from, asbestos-containing material.

DEMOLITION - Wrecking, razing, leveling, dismantling, or burning of a structure, making all or part of the structure permanently uninhabitable or unusable.

FRIABLE ASBESTOS-CONTAINING MATERIAL - Asbestos-containing material that, when dry, can be crumbled, disintegrated, or reduced to powder by hand pressure or by the forces expected to act upon the material in the course of demolition, renovation, or disposal. Such materials include, but are not limited to, thermal system insulation, surfacing material, and cement asbestos products.

LEAK-TIGHT CONTAINER - A dust-tight and liquid-tight container, at least 6-mil thick, that encloses asbestos-containing waste material and prevents solids or liquids from escaping or spilling out. Such containers may include sealed plastic bags, metal or fiber drums, and sealed polyethylene plastic.

NONFRIABLE ASBESTOS-CONTAINING MATERIAL - Asbestos-containing material that, when dry, cannot be crumbled, disintegrated, or reduced to powder by hand pressure or by the forces expected to act on the material in the course of demolition, renovation, or disposal.

OWNER-OCCUPIED, SINGLE-FAMILY RESIDENCE - Any non-multiple unit building containing space for uses such as living, sleeping, preparation of food, and eating that is currently used by one family who owns the property as their primary or seasonal residence. This term includes houses, mobile homes, trailers, detached garages, houseboats, and houses with a "mother-in-law apartment" or "guest room". This term does not include rental property or multiple-family units, nor does this term include any mixed-use building, structure, or installation that contains a residential unit.

PERSON - Any individual, firm, public or private corporation, association, partnership, political subdivision, municipality, or government agency.

RENOVATION - Altering a facility or a component in any way, except demolition.

SURFACING MATERIAL - Material that is sprayed-on, troweled-on, or otherwise applied to surfaces including, but not limited to, acoustical plaster on ceilings, paints, fireproofing materials on structural members, or other materials on surfaces for decorative purposes.

SUSPECT ASBESTOS-CONTAINING MATERIAL - Material that has historically contained asbestos including, but not limited to, surfacing material, thermal system insulation, roofing material, fire barriers, gaskets, flooring material, and siding.

THERMAL SYSTEM INSULATION - Material applied to pipes, fittings, boilers, tanks, ducts, or other structural components to prevent heat loss or gain.

570.3 ASBESTOS SURVEY REQUIREMENTS

(A) Requirements for Renovations

It shall be unlawful for any person to cause or allow a renovation unless the property owner or the owner's agent determines whether there are suspect asbestos-containing materials in the work area and obtains an asbestos survey of any suspect asbestos-containing materials by an AHERA building inspector. An AHERA building inspector is not required for asbestos surveys associated with the renovation of an owner-occupied, single-family residence.

- (1) If there are no suspect materials in the work area, this determination shall either be posted at the work site or communicated in writing to all contractors involved in the renovation.
- (2) It is not required that an AHERA building inspector evaluate any material presumed to be asbestos-containing material.
- (3) Except for renovations of an owner-occupied, single-family residence, only an AHERA building inspector may determine that a suspect material does not contain asbestos.
- (4) A summary of the results of the asbestos survey shall either be posted by the property owner or the owner's agent at the work site or communicated in writing to all persons who may come into contact with the material.

(B) Requirements for Demolitions

It shall be unlawful for any person to cause or allow any demolition unless the property owner or the owner's agent obtains an asbestos survey by an AHERA building inspector of the structure to be demolished.

- (1) It is not required that an AHERA building inspector evaluate any material presumed to be asbestos-containing material.
- (2) Only an AHERA building inspector may determine that a suspect material does not contain asbestos.
- (3) A summary of the results of the asbestos survey shall either be posted by the property owner or the owner's agent at the work site or communicated in writing to all persons who may come into contact with the material.

570.4 NOTIFICATION REQUIREMENTS

(A) General Requirements

It shall be unlawful for any person to cause or allow any work on an asbestos project or demolition unless a complete notification, including the required fee and any additional information requested by the Control Officer, has been submitted to the NWCAA on approved forms, in accordance with the advance notification period requirements contained in 570.4(D) of this Regulation.

- (1) The duration of an asbestos project shall be commensurate with the amount of work involved.

- (2) Notification is not required for asbestos projects involving less than 10 linear feet or 48 square feet (per structure, per calendar year) of any asbestos-containing material.
- (3) Notification is not required for removal and disposal of the following nonfriable asbestos-containing materials: caulking, window glazing, or roofing. All other asbestos project and demolition requirements remain in effect except as provided by Section 570.
- (4) Notification is required for all demolitions of structures with a greater than 120 square feet footprint even if no asbestos-containing material is present. All other demolition requirements remain in effect.
- (5) The written notification shall be accompanied by the appropriate nonrefundable fee as set forth in 324.8 of this Regulation unless prior arrangements for payment have been made with the NWCAA.
- (6) A copy of the notification, all amendments to the notification, the asbestos survey, and any Order of Approval for an alternate means of compliance shall be available for inspection at all times at the asbestos project or demolition site.
- (7) Notification for multiple asbestos projects or demolitions may be filed by a property owner on one form if all the following criteria are met:
 - (a) The work will be performed continuously by the same contractor; and
 - (b) A work plan is submitted that includes: a map of the structures involved in the project including the site address for each structure; the amount and type of asbestos-containing material in each structure; and the schedule for performing asbestos project and demolition work. For projects where a detailed work schedule cannot be provided the asbestos contractor and/or the demolition contractor shall participate in the NWCAA's work schedule fax program and will continue to participate in the program throughout the duration of the project.
- (8) Annual Notification

A property owner may file one annual notification for asbestos projects to be conducted on one or more structures, vessels, or buildings during each calendar year if all of the following conditions are met:

- (a) The annual notification shall be filed with the NWCAA before commencing work on any asbestos project included in an annual notification;
- (b) The total amount of asbestos-containing material for all asbestos projects from each structure, vessel, or building in a calendar year under this section is less than 260 linear feet on pipes or less than 160 square feet on other components; and
- (c) The property owner submits quarterly written reports to the Control Officer on NWCAA-approved forms within 15 days after the end of each calendar quarter.

(B) Mandatory Amendments

An amendment shall be submitted to the Control Officer for the following changes in a notification:

- (1) Increases in the project type or job size category that increase the fee or change the advance notification period;
- (2) Changes in the type of asbestos-containing material that will be removed; or
- (3) Changes in the start date, completion date, or work schedule, including hours of work. Asbestos contractors or property owners participating in the NWCAA work schedule fax program are not required to submit amendments for work schedule changes occurring between the start and completion dates.

(C) Emergencies

The Control Officer may waive the advance notification period, if the property owner submits a written request that demonstrates to the Control Officer that an asbestos project or demolition must be conducted immediately because of any of the following:

- (1) There was a sudden, unexpected event that resulted in a public health or safety hazard;
- (2) The project must proceed immediately to protect equipment, ensure continuous vital utilities, or minimize property damage;
- (3) Asbestos-containing materials were encountered that were not identified during the asbestos survey; or
- (4) The project must proceed to avoid imposing an unreasonable burden.

(D) Notification Period

Project	Notification Period
Asbestos Project Residential – Owner-Occupied –Single Family Residence 10 - 259 linear feet or 48 - 159 square feet)* 260 - 999 linear feet or 160 - 4999 square feet > 1000 linear feet or > 5000 square feet)	Prior Notice 3 days 10 days 10 days
Demolitions with no Asbestos Project	10 days
Emergency Classification (NWCAA 570.4(C))	Prior Notice
Amendments (NWCAA 570.4(B))	Prior Notice
Annual Notification (NWCAA 570.4(A)(8))	Prior Notice

*Demolitions with asbestos projects involving less than 10 linear feet or less than 48 square feet may submit an asbestos project notification under this project category and will be eligible for the 3-day notification period.

The Control Officer may waive the notification period, by written authorization, for disposal of unused and intact or abandoned (without the knowledge or consent of the property owner) asbestos-containing materials. All other asbestos project and demolition requirements remain in effect.

570.5 ASBESTOS REMOVAL REQUIREMENTS PRIOR TO RENOVATION OR DEMOLITION

(A) Removal of Asbestos Prior to Renovation or Demolition

Except as provided in 570.6(C) of this Regulation, it shall be unlawful for any person to cause or allow any demolition or renovation that may disturb asbestos-containing material or damage a structure so as to preclude access to asbestos-containing material for future removal, without first removing all asbestos-containing material in accordance with the requirements of this regulation. Asbestos-containing material need not be removed from a component if the component can be removed, stored, or transported for reuse without disturbing or damaging the asbestos.

(B) Exception for Hazardous Conditions

Asbestos-containing material need not be removed prior to a demolition, if the property owner demonstrates to the Control Officer

that it is not accessible because of hazardous conditions such as: structures or buildings that are structurally unsound and in danger of imminent collapse, or other conditions that are immediately dangerous to life and health. The property owner must submit the written determination of the hazard by an authorized government official or a licensed structural engineer, and must submit the procedures that will be followed for controlling asbestos emissions during the demolition or renovation and disposal of the asbestos-containing waste material.

570.6 PROCEDURES FOR ASBESTOS PROJECTS

(A) Training Requirements

It shall be unlawful for any person to cause or allow any work on an asbestos project unless it is performed by persons trained and certified in accordance with the standards established by the Washington State Department of Labor and Industries, the federal Occupational Safety and Health Administration, or the United States Environmental Protection Agency (whichever agency has jurisdiction) and whose certification is current. This certification requirement does not apply to individuals who work on asbestos projects on their own single family residence(s), no part of which is used for any commercial purpose.

(B) Asbestos Removal Work Practices

Except as provided in 570.6(C) of this Regulation, it shall be unlawful for any person to cause or allow the removal of asbestos-containing material unless all the following requirements are met:

- (1) The asbestos project shall be conducted in a controlled area, clearly marked by barriers and asbestos warning signs. Access to the controlled area shall be restricted to authorized personnel only.
- (2) If a negative pressure enclosure is employed it shall be equipped with transparent viewing ports, if feasible, and shall be maintained in good working order.
- (3) Absorbent, asbestos-containing materials, such as surfacing material and thermal system insulation, shall be saturated with a liquid wetting agent prior to removal. Any unsaturated, absorbent, asbestos-containing materials exposed during removal shall be immediately saturated with a liquid wetting agent.
- (4) Nonabsorbent, asbestos-containing materials, such as cement asbestos board or vinyl asbestos tile, shall be continuously coated with a liquid wetting agent on any exposed surface prior to and during removal. Any dry surfaces of nonabsorbent,

asbestos-containing materials exposed during removal shall be immediately coated with a liquid wetting agent.

- (5) Metal components (such as valves, fire doors, and reactor vessels) that have internal asbestos-containing material are exempt from the requirements of 570.6(B)(3) and 570.6(B)(4) if all access to the asbestos-containing material is welded shut or the component has mechanical seals, which cannot be removed by hand, that separate the asbestos-containing material from the environment.
 - (6) Except for surfacing materials being removed inside a negative pressure enclosure, asbestos-containing materials that are being removed, have been removed, or may have fallen off components during an asbestos project shall be carefully lowered to the ground or a lower floor, not dropped, thrown, slid, or otherwise damaged.
 - (7) All asbestos-containing waste material shall be sealed in leak-tight containers as soon as possible after removal but no later than the end of each work shift.
 - (8) All absorbent, asbestos-containing waste material shall be kept saturated with a liquid wetting agent until sealed in leak-tight containers while saturated with a liquid wetting agent. All nonabsorbent, asbestos-containing waste material shall be kept coated with a liquid wetting agent until sealed in leak-tight containers while coated with a liquid wetting agent.
 - (9) The exterior of each leak-tight container shall be free of all asbestos residue and shall be permanently labeled with an asbestos warning sign as specified by the Washington State Department of Labor and Industries or the federal Occupational Safety and Health Administration.
 - (10) Immediately after sealing, each leak-tight container shall be permanently marked with the date the material was collected for disposal, the name of the waste generator, and the address at which the waste was generated. This marking must be readable without opening the container.
 - (11) Leak-tight containers shall not be dropped, thrown, slid, or otherwise damaged.
 - (12) The asbestos-containing waste material shall be stored in a controlled area until transported to an approved waste disposal site.
- (C) Method of Removal for Nonfriable Asbestos-Containing Roofing Material

The following asbestos removal method shall be employed for asbestos-containing roofing material that has been determined to be nonfriable by a Competent Person or an AHERA Project Designer:

- (1) The nonfriable asbestos-containing roofing material shall be removed using methods such as spud bar and knife. Removal methods such as sawing or grinding shall not be employed;
- (2) Dust control methods shall be used as necessary to assure no fugitive dust is generated from the removal of nonfriable asbestos-containing roofing material;
- (3) Nonfriable asbestos-containing roofing material shall be carefully lowered to the ground to prevent fugitive dust;
- (4) After being lowered to the ground, the nonfriable asbestos-containing roofing material shall be immediately transferred to a disposal container; and
- (5) Each disposal container shall have a sign identifying the material as nonfriable asbestos-containing roofing material.

570.7 COMPLIANCE WITH OTHER RULES

Other government agencies have adopted rules that may apply to asbestos projects regulated under these rules including, but not limited to, the U.S. Environmental Protection Agency, the Occupational Safety and Health Administration, and the Department of Labor and Industries. Nothing in the Agency's rules shall be construed as excusing any person from complying with any other applicable local, state, or federal requirement.

570.8 DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

- (A) Except as provided in 570.8(C) of this Regulation, it shall be unlawful for any person to cause or allow the disposal of asbestos-containing waste material unless it is deposited within 10 days of removal at a waste disposal site authorized to accept such waste.
- (B) Waste Tracking Requirements

It shall be unlawful for any person to cause or allow the disposal of asbestos-containing waste material unless the following requirements are met:

- (1) Maintain waste shipment records, beginning prior to transport, using a form that includes the following information:
 - (a) The name, address, and telephone number of the waste generator;
 - (b) The approximate quantity in cubic meters or cubic yards;

- (c) The name and telephone number of the disposal site operator;
 - (d) The name and physical site location of the disposal site;
 - (e) The date transported;
 - (f) The name, address, and telephone number of the transporter; and
 - (g) A certification that the contents of the consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition to transport by highway according to applicable international and government regulations.
- (2) Provide a copy of the waste shipment record to the disposal site at the same time the asbestos-containing waste material is delivered.
 - (3) If a copy of the waste shipment record, signed by the owner or operator of the disposal site, is not received by the waste generator within 35 calendar days of the date the waste was accepted by the initial transporter, contact the transporter and/or the owner or operator of the disposal site to determine the status of the waste shipment.
 - (4) If a copy of the waste shipment record, signed by the owner or operator of the disposal site, is not received by the waste generator within 45 days of the date the waste was accepted by the initial transporter, report in writing to the Control Officer. Include in the report, a copy of the waste shipment record and a cover letter signed by the waste generator explaining the efforts taken to locate the asbestos waste shipment and the results of those efforts.
 - (5) Retain a copy of all waste shipment records, including a copy of the waste shipment record signed by the owner or operator of the designated waste disposal site, for at least 2 years.
- (C) Temporary Storage Site

A person may establish a facility for the purpose of collecting and temporarily storing asbestos-containing waste material if the facility is approved by the Control Officer and all the following conditions are met:

- (1) Accumulated asbestos-containing waste material shall be kept in a controlled storage area posted with asbestos warning signs and accessible only to authorized persons;
 - (2) All asbestos-containing waste material shall be stored in leak-tight containers and the leak-tight containers shall be maintained in good condition;
 - (3) The storage area must be locked except during transfer of asbestos-containing waste material; and
 - (4) Storage, transportation, disposal, and return of the waste shipment record to the waste generator shall not exceed 90 days.
- (D) Disposal of Asbestos Cement Pipe

Asbestos cement pipe used on public right-of-ways, public easements, or other places receiving the prior written approval of the Control Officer may be buried in place if the pipe is covered with at least 3 feet or more of non-asbestos fill material. All asbestos cement pipe fragments that are 1 linear foot or less and other asbestos-containing waste material shall be disposed of at a waste disposal site authorized to accept such waste.

PASSED: November 12, 1998 AMENDED: July 14, 2005, November 8, 2007, September 11, 2014

SECTION 580 - VOLATILE ORGANIC COMPOUND CONTROL

580.1 The Board of Directors has noted the measurement of ozone concentrations (one hour ave.) nearing the Federal ambient standard at the northern and southern boundaries of the NWCAA jurisdiction. The expanding population and the presence of four large refineries contribute volatile organic compound (VOC) emissions to the atmosphere. Photochemically reactive VOC's are precursors to ozone formation. In order to maintain the current attainment status for ozone, the Board has adopted specific measures to control VOC emissions. Reasonable Available Control Technology (RACT) is required for existing refinery operations, gasoline marketing, and in the use of cutback asphalt. RACT is defined as the lowest emission limit that a particular source is capable of meeting by the application of control that is reasonably available considering technological and economic feasibility.

PASSED: December 13, 1989 AMENDED: April 14, 1993, October 13, 1994, February 8, 1996, May 14, 2020

SECTION 580.2 - Petroleum Refineries

- 580.21 This section shall apply to all petroleum refineries with a crude oil or feed stock capacity greater than three hundred eighteen thousand liters (2,000 barrels) per day.
- 580.22 It shall be unlawful for any person to cause or allow the disposal of VOC from the vacuum producing systems covered under this subsection except as follows:
- 580.221 Noncondensable VOC shall be piped to an appropriate firebox, incinerator or to a closed refinery system.
 - 580.222 Hot wells associated with contact condensers shall be tightly covered and the collected VOC introduced into a closed refinery system.
- 580.23 It shall be unlawful for any person to cause or allow the operation of a wastewater separator with annual VOC emissions estimated by the NWCAA to exceed 25 tons, when such operation does not comply as follows:
- 580.231 Wastewater separator forebays shall incorporate a floating pontoon or fixed solid cover with all openings sealed totally enclosing the compartmented liquid contents, or a floating pontoon or a double deck-type cover equipped with closure seals between the cover edge and compartment wall. Collected vapors shall not be discharged to the atmosphere.
 - 580.232 Accesses for gauging and sampling shall be designed to minimize VOC emissions during actual use. All access points shall be closed with suitable covers when not in use.
- 580.24 It shall be unlawful for any person to cause or allow a process unit turnaround which does not comply with the following conditions:
- 580.241 The VOC contained in a process unit to be depressurized for turnaround shall be introduced to a closed refinery system, combusted by a flare, or vented to a disposal system.
 - 580.242 The VOC pressure in a process unit following depressurization for turnaround shall be less than five pounds per square inch gauge (psig) before venting to the ambient air.
 - 580.243 The owner or operator shall keep a record of each process unit turnaround not in compliance with 580.242.
 - 580.244 The owner or operator shall keep a record of each process unit turnaround listing the date the unit was shut down, the estimated vessel VOC concentration when the VOC was first emitted, and the estimated total quantity of VOC emitted.

- 580.25 Equipment for the reduction, collection or disposal of VOC shall be maintained and operated in a manner commensurate with accepted industrial practices.
- 580.26 Any petroleum refinery process unit, storage facility or other operation (including drains) subject to federal VOC or HAP standards (NSPS, Benzene Waste NESHAP, Petroleum Refinery NESHAP, etc.) is exempt from the requirements of NWCAA 580.3 through NWCAA 580.10. Such exemption shall take effect upon the date of required compliance with the federal standard.

PASSED: December 13, 1989 AMENDED: February 8, 1996

580.3 High Vapor Pressure Volatile Organic Compound Storage Tanks

- 580.31 Subsections 580.32 through 580.37 shall apply to all tanks which store volatile organic compounds with a true vapor pressure as stored greater than 10.5 kilopascals (Kpa) 1.5 pounds per square inch (psia), but less than 77.7 Kpa (11.1 psia) at calendar-month average storage temperatures and have a capacity greater than one hundred fifty thousand liters (40,000 gallons).
- 580.32 It shall be unlawful for any person to cause or allow storage of volatile organic compounds as specified in Section 580.31 unless each storage tank or container:
 - 580.321 Meets the equipment specifications and maintenance requirements of the Federal Standards of Performance for New Stationary Sources -Storage Vessels for Petroleum Liquids (40 CFR 60, subpart Kb); or
 - 580.322 Is retrofitted with a floating roof or internal floating cover using a metallic seal or a nonmetallic resilient seal at least meeting the equipment specifications of the Federal standards referred to in 580.321 of this subsection, or its equivalent; or
 - 580.323 Is fitted with a floating roof or internal floating cover meeting manufacturers equipment specifications in effect when it was installed.
- 580.33 All seals used with equipment subject to this section are to be maintained in good operating condition and the seal fabric shall contain no visible holes, tears or other openings.
- 580.34 All openings not related to safety are to be sealed with suitable closures.

- 580.35 Tanks used for the storage of gasoline in bulk gasoline plants and equipped with vapor balance systems as required in 580.52 shall be exempt from the requirements of this section.
- 580.36 All tanks not exempted by subsection 580.26 shall meet the monitoring, recordkeeping and reporting requirements of 40 CFR 60 Subpart Kb, with the exception of the monitoring report submittal requirements of 60.115b(b)(2). Compliance with subsection 580.36 shall be no later than December 31, 1999.
- 580.37 All tanks exempt by subsection 580.26 and all tanks subject to Section 580.3 or 580.9 shall be exempt from Section 560 of this Regulation.
- 580.38 All tanks storing volatile organic compounds with a true vapor pressure greater than 77.7 kPa (11.1 psia) shall be equipped with a vapor recovery system.

PASSED: December 13, 1989 AMENDED: May 14, 1998, November 12, 1998

580.4 Gasoline Loading Terminals

- 580.41 Section 580.42 shall apply to all gasoline loading terminals with an annual gasoline throughput greater than twenty-seven million three hundred thousand liters (7,200,000 gallons).
- 580.42 It shall be unlawful for any person to cause or allow the loading of gasoline into any transport tank unless all the following conditions are met:
 - 580.421 The loading terminal shall employ submerged loading or bottom loading and be equipped with a vapor control system.
 - 580.422 All loading lines and vapor lines shall be equipped with vapor-tight fittings which close automatically upon disconnect. The point of closure shall be on the tank side of any hose or immediate connecting line.
 - 580.423 All vapor return lines shall be connected between the transport tank and the vapor control system such that all displaced volatile organic compounds are vented to the vapor control system.
 - 580.424 The vapor control system shall prevent the emission of at least 90 percent by weight of the volatile organic compounds and shall limit the emission of volatile organic compounds to no more than 10 milligrams per liter of gasoline transferred. Compliance shall be demonstrated biennially by conducting emission testing according to EPA Method 25 or another method approved by the Control Officer. Thirty days advance notification is required.

- 580.425 The vapor control system shall be equipped with an appropriate alarm system to alert personnel when the system is not in compliance with 580.424. Prior approval by the Control Officer is required.
- 580.426 All loading arms shall be designed, maintained and operated to prevent overfill, prevent fugitive liquid or vapor leaks, and prevent excess gasoline drainage during disconnect in accordance with the requirements of 580.10.

PASSED: December 13, 1989 AMENDED: June 14, 2001

580.5 Bulk Gasoline Plants

580.51 Section 580.5 shall apply to all gasoline bulk plants.

580.511 It shall be unlawful for any person to cause or allow the storage of gasoline in tanks with a capacity of two thousand one hundred liters (550 gallons) or greater unless such storage is in tanks meeting the following conditions:

580.5111 Each storage tank shall be equipped with a submerged fill line.

580.512 It shall be unlawful for any person to cause or allow transfer of gasoline between a storage tank and a transport tank except under the following condition:

580.5121 All transport tanks shall be submerged filled or bottom loaded.

580.52 Section 580.52 shall apply to all bulk gasoline plants with an annual gasoline throughput greater than seven million six hundred thousand liters (2,000,000 gallons).

580.521 It shall be unlawful for any person to cause or allow the storage of gasoline in tanks with a capacity of two thousand one hundred liters (550 gallons) or greater unless such storage is in tanks meeting the following conditions.

580.5211 Each storage tank shall be equipped for vapor balancing of gasoline vapors with transport tanks during gasoline transfer operations.

580.5212 The vapor line fittings on the storage tank side of break points with the transport tank vapor connection pipe or hose shall be equipped to close automatically upon planned or unintentional disconnect.

- 580.5213 The pressure relief valves on storage tanks shall be set at the highest possible pressure consistent with local and state codes for fire and safety.
- 580.522 Except as provided in 580.523 of this section, it shall be unlawful for any person to cause or allow the transfer of gasoline into or out of any transport tank at a bulk gasoline plant unless said transfer is in compliance with the following conditions:
- 580.5221 The transport tank shall be equipped with the proper attachment fittings to make vapor-tight connections for vapor balancing with storage tanks; and
- 580.5222 The vapor line fittings on the transport tank side of break points with the storage tank connection pipe or hose shall be equipped to close automatically upon planned or unintentional disconnect; and
- 580.5223 The pressure relief valves on transport tanks shall be set at the highest possible pressure consistent with local and state codes for fire and safety.
- 580.523 The vapor line fittings on the storage tank side of break points with the transport tank vapor connection pipe or hose shall be equipped to close automatically upon planned or unintentional disconnect.
- 580.5231 The transport tank is used exclusively for the delivery of gasoline into storage tanks of a facility exempt from the vapor balance requirements of 580.6; and
- 580.5232 The transport tank has a total capacity less than fifteen thousand liters (4,000 gallons) and is of a compartmented design and construction requiring the installation of four or more separate vapor balance fittings.
- 580.524 The pressure relief valves on storage tanks shall be set at the highest possible pressure consistent with local and state codes for fire and safety.
- 580.5241 The loading of all transport tanks, exempted under 580.523 of this section, shall be performed such that at least ninety percent by weight of the gasoline vapors displaced during filling are prevented from being released into the ambient air; providing that emissions from pressure relief valves shall not be included in the controlled emissions. This emission limitation will be met by vapor balancing in compliance with all provisions of this section.

- 580.525 It shall be unlawful for any person to cause or allow continued transfer of gasoline at any transfer point following occurrence of failure or leakage in any part of the vapor balance system, provided that occurrence of failure or leakage during loading or unloading of a transport tank shall not prevent the complete loading or unloading of the tank.
- 580.526 It shall be unlawful for any person to cause or permit the operation of a bulk gasoline plant or a transport tank without taking reasonable necessary measures to prevent the spilling, discarding in sewers, storing in open containers or handling of gasoline in a manner on the plant site that will result in evaporation to the ambient air.
- 580.53 Except as provided in 580.54 of this section, it shall be unlawful for any person to cause or allow the transfer of gasoline into or out of any transport tank at a bulk gasoline plant unless said transfer is in compliance with the following conditions:
- 580.531 The transport tank shall be equipped with the proper attachment fittings to make vapor-tight connections for vapor balancing with storage tanks; and
- 580.532 The vapor line fittings on the transport tank side of break points with the storage tank connection pipe or hose shall be equipped to close automatically upon planned or unintentional disconnect; and
- 580.533 The pressure relief valves on transport tanks shall be set at the highest possible pressure consistent with local and state codes for fire and safety.
- 580.54 Transport tanks used for gasoline shall be exempt from the requirement to be equipped with any attachment fitting for vapor balance lines, provided the following conditions are met:
- 580.541 The transport tank is used exclusively for the delivery of gasoline into storage tanks of a facility exempt from the vapor balance requirements of 580.6; and
- 580.542 The transport tank has a total capacity less than fifteen thousand liters (4,000 gallons) and is of a compartmented design and construction requiring the installation of four or more separate vapor balance fittings.
- 580.55 It shall be unlawful for any person to cause or allow transfer of gasoline between a storage tank and a transport tank except under the following conditions:

580.551 The loading of all transport tanks, except those exempted under 580.54 of this section, shall be performed such that ninety percent by weight of the gasoline vapors displaced during filling are prevented from being released into the ambient air; providing that emissions from pressure relief valves shall not be included in the controlled emissions. This emission limitation will be met by vapor balancing in compliance with all provisions of this section.

580.56 It shall be unlawful for any person to cause or allow continued transfer of gasoline at any transfer point following occurrence of failure or leakage in any part of the vapor balance system, provided that occurrence of failure or leakage during loading or unloading of a transport tank shall not prevent the complete loading or unloading of the tank.

580.57 It shall be unlawful for any person to cause or permit the operation of a bulk gasoline plant or a transport tank without taking reasonable necessary measures to prevent the spilling, discarding in sewers, storing in open containers or handling of gasoline in a manner on the plant site that will result in evaporation to the ambient air.

PASSED: February 14, 1990

580.6 GASOLINE DISPENSING FACILITIES

(A) NWCAA 580.6(B) shall apply to all gasoline dispensing facilities (GDF) with an annual 12-consecutive month gasoline throughput equal to or greater than 120,000 gallons.

(B) It shall be unlawful for any person to cause or allow the transfer of gasoline from any transport tank into any stationary storage tank, except as provided in NWCAA 580.6(C), unless all of the following conditions are met:

(1) Such stationary storage tank is equipped with a permanent submerged or bottom loading fill line and a vapor recovery system.

(2) Vapor recovery system equipment, including, but not limited to, caps, adaptors, drain valves, and poppets, shall be installed and maintained to be vapor tight and in good working order.

(3) Such transport tank is equipped with a vapor balance system and is maintained in a vapor-tight condition in accordance with NWCAA 580.10.

- (4) All vapor return lines are connected between the transport tank and the stationary storage tank and the vapor recovery system is functional and operating during loading.
- (C) The following stationary gasoline storage tanks are exempt from the requirements of 580.6(A), (B), (D), and (F):
 - (1) All tanks with a capacity less than 2,000 gallons installed before January 1, 1990.
 - (2) All tanks with offset fill lines installed before January 1, 1990.
 - (3) All tanks with a capacity less than 264 gallons.
- (D) Except for gasoline storage tanks specified in NWCAA 580.6(C), all gasoline tank vent pipes at gasoline dispensing facilities shall be equipped with properly functioning pressure vacuum vent (PV) caps.
- (E) All gasoline storage tanks at gasoline dispensing facilities shall be maintained in a vapor-tight condition and in good working order. This includes, but is not limited to, caps, adaptors, and drain valves.
- (F) All gasoline dispensing facilities that have Stage I vapor recovery shall conduct static pressure decay tests on all gasoline storage tanks, except those specified in NWCAA 580.6(C).
 - (1) The static pressure decay tests shall be conducted on the following frequency unless more frequent testing is required by an Order of Approval or General Order of Approval:

GDF Throughput	Frequency
30,000 to 119,999 gal/yr	Every 5 calendar years
120,000 to 1,200,000 gal/yr	Every 3 calendar years
> 1,200,000 gal/yr	Every calendar year

- (2) The pressure decay tests shall be conducted in accordance with California Air Resources Board (CARB) TP-201.3 (dated 7/26/12) for underground storage tanks and CARB TP-201.3B (dated 4/12/96) for above ground tanks, or test procedures that have been approved by CARB as equivalent.
- (3) Any person conducting a compliance test must be certified by the International Code Council or other association approved by the NWCAA in writing.
- (4) Failed Compliance Tests. If the defective gasoline dispensing facility equipment cannot be repaired within 14 calendar days of failing a test, the owner or operator must stop receiving and/or dispensing gasoline from the defective equipment until it is repaired and retested, and passes all required compliance tests.

(5) Test Reports

- (a) The owner or operator shall submit a written test report to the NWCAA within 30 calendar days after the testing has been completed that includes the following information:
 - (i) Identification of the facility,
 - (ii) Name and address of the person(s) who conducted each test,
 - (iii) Current certification credential information for each person who conducted each test,
 - (iv) Date of each test,
 - (v) Equipment tested,
 - (vi) Test procedures or methods used,
 - (vii) Results of each test conducted (pass/fail), and
 - (viii) Any maintenance, repairs, or corrective actions taken necessary to pass the tests.
- (b) Owners or operators shall keep a copy of all test reports on-site for at least 5 years after the date of testing that shall be made available for inspection upon request.

PASSED: February 14, 1990 AMENDED: April 14, 1993, October 13, 1994, March 13, 1997, May 14, 1998, November 12, 1998, September 13, 2018

580.7 Cutback Asphalt Paving

- 580.71 After June 1, 1990, it shall be unlawful for any person to cause or allow the use of cutback asphalt in paving during the months of June, July, August and September, except as provided for in 580.72 of this section.
- 580.72 The following paving uses and applications of cutback asphalts are permitted during all months of the year;
 - 580.721 As a penetrating prime coat on aggregate bases prior to paving.
 - 580.722 The manufacture of patching mixes used exclusively for pavement maintenance and needed to be stockpiled for times longer than one month.
 - 580.723 All paving uses when the temperature during application is below 10 °C (50 °F).

PASSED: December 13, 1989 AMENDED: April 14, 1993

580.8 Petroleum Refinery Equipment Leaks

- 580.81 This section shall apply to all components (pump seals, compressor seals, pipeline valves and relief valves) handling volatile organic compounds at petroleum refinery process units and loading sites which utilize butane or lighter hydrocarbons as a primary feedstock. The process units shall include alkylation, polymerization, and LPG loading. This section does not apply to systems or facilities in which or to which natural gas or refinery fuel gas are supplied.
- 580.82 It shall be unlawful to install or operate a sample point at the end of a pipe or line containing VOC unless the pipe or line is sealed with a second suitable closure. Exceptions to this requirement are the ends of a pipe or line connected to pressure relief valves, aspirator vents or other devices specifically required to be open for safety protection. The sealing device shall be removed only when a sample is being taken or during maintenance operations.
- 580.83 It shall be unlawful for any person to cause or allow the operation of a petroleum refinery unless such person conducts a fugitive leak detection and repair program for process units specified in 580.81 and 580.82 consistent with the provisions of 40 CFR 60.591-60.593. Where compliance with 40 CFR 60.591-60.593 results in any expansion of a facilities current LDAR program or modification of an existing facility, the date of applicability for the new portion of the program shall be August 31, 1998.
- 580.84 Pressure relief devices that are connected to an operating flare header, vapor recovery device, inaccessible valves, storage tank valves and valves that are not externally regulated are exempt from the monitoring requirements of this Section.

PASSED: December 13, 1989 AMENDED: March 13, 1997

580.9 High Vapor Pressure Volatile Organic Compound Storage in External Floating Roof Tanks

- 580.91 This section shall apply to all VOC storage vessels equipped with external floating roofs, having capacities greater than 150,000 liters (40,000 gallons). Compliance with this section shall be achieved by December 31, 1999.
- 580.92 This section does not apply to storage vessels that:
- 580.921 Are used to store waxy, heavy pour crude oil;
 - 580.922 Have capacities less than 1,600,000 liters (420,000 gallons) and are used to store produced crude oil and condensate prior to lease custody transfer;

- 580.923 Contain a volatile organic compound with a true vapor pressure of less than 10.5 kPa (1.5 psia);
 - 580.924 Contain a volatile organic compound with a true vapor pressure less than 27.6 kPa (4.0 psia), are of welded construction, and presently possess a metallic-type shoe seal, a liquid-mounted foam seal, a liquid-mounted liquid fill type seal, or other equivalent closure device approved by the Control Officer; or
 - 580.925 Are of welded construction, equipped with a metallic-type shoe primary seal and have a shoe-mounted secondary seal.
- 580.93 It shall be unlawful for any person to store a volatile organic compound in a vessel subject to this section unless the vessel has been fitted with a rim-mounted secondary seal or an equivalent closure device approved by the Control Officer.
- 580.94 All seals or closure devices required by 580.93 shall meet the following requirements:
- 580.941 There must be no visible holes, tears, or other openings in the seal or seal fabric;
 - 580.942 The seal shall be intact and uniformly in place around the circumference of the floating roof between the roof and the tank wall; and
 - 580.943 For vapor mounted primary seals, the accumulated area of gaps exceeding 0.32 cm (1/8 inch) in width between the secondary seal and the tank wall shall not exceed 21.2 cm² per meter of tank diameter (1.0 in 2 per foot of tank diameter).
- 580.95 All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves shall be:
- 580.951 Equipped with covers, seals, or lids in the closed position except when the openings are in actual use; and
 - 580.952 Equipped with projections into the tank which remain below the liquid surface at all times.
- 580.96 Automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports;
- 580.97 Rim vents shall be set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting;
- 580.98 Emergency roof drains shall be provided with slotted membrane fabric covers or equivalent which cover at least ninety percent of the area of the opening.
- 580.99 Routine inspections shall be performed as follows:

- 580.991 Conduct a semi-annual visual inspection of the secondary seal gap;
- 580.992 Measure the secondary seal gap annually if the floating roof is equipped with a vapor-mounted primary seal; and
- 580.993 Maintain records of the types of petroleum liquids stored, the maximum true vapor pressure of the liquid as stored, and the results of any inspections performed for period of two years after the date on which the record was made.
- 580.994 A person proposing to measure the seal fit of a storage vessel in order to comply with this section shall notify the Control Officer of the intent to measure not less than five working days before the measurement so the Control Officer may at his option observe the measurement.

580.100 It shall be unlawful for any person to store a volatile organic compound in a vessel with an external floating roof exempted from this section by 580.924, but containing a volatile organic compound with a true vapor pressure greater than 10.5 kPa (1.5 psia) unless records of the average monthly storage temperature, the type of liquid and the maximum true vapor pressure of such liquids are maintained.

PASSED: December 13, 1989

580.10 Leaks From Gasoline Transport Tanks and Vapor Control Systems

580.101 Applicability This Section shall apply to all gasoline transport tanks and all facilities subject to 580.4, 580.5, and 580.6 of the Northwest Clean Air Agency Regulation.

580.102 Transport Tanks (also referred to as cargo tanks) It shall be unlawful for any person to cause or allow the transfer of gasoline between a facility subject to the requirements of this Section and a gasoline transport tank unless:

- 580.1021 a current (within 365 days) vapor tightness test certification for the transport tank is on file with the facility or is available in the transport vehicle.
 - (a) The vapor tightness test shall be conducted annually in accordance with the procedures specified in 40 CFR 63.425(e) and;
 - (b) The complete vapor tightness certificate shall be on a form approved by the Northwest Clean Air Agency.

580.1022 It is loaded and unloaded in such a manner that the concentration of gasoline vapors is below the lower explosive limit (expressed

as propane) at all points a distance of 2.5 cm (1 inch) or greater from any potential leak source. Any transport tank which fails to meet the requirements of this subparagraph shall be repaired and retested in accordance with 40 CFR 63.422(c) prior to reloading.

580.103 Vapor Control Systems It shall be unlawful for any person to cause or allow the operation of any facility subject to this Section unless the vapor control system and the gasoline loading equipment is operated during all loading and unloading of gasoline such that:

580.1031 The concentrations of gasoline vapors is below the lower explosive limit (expressed as propane) at all points a distance of 2.5 cm (1 inch) or greater from any potential leak source; and

580.1032 There are no liquid leaks in excess of three drops per minute and there is no more than 10 ml of liquid drainage per disconnect.

PASSED: December 13, 1989 AMENDED: November 12, 1999

SECTION 580.11 Scope, Registration, Reporting and Notice of Construction

580.111 The owner or operator of a stationary emission source of VOC shall notify the NWCAA and register the source in compliance with Sections 300, 320, 321, 324.

580.112 The owner or operator of a registered stationary emission source of VOC shall furnish, upon request of the Control Officer, such data as the NWCAA may require to calculate the emission of the source and evaluate the emission control program; and such other data at times as may be required by the Control Officer. The data shall be supplied not later than (60) sixty days following the request, in a form and according to instructions received from the Control Officer.

580.113 Owners or operators of stationary emission sources of VOC, as defined in Section 580, shall demonstrate compliance with these regulations, using procedures approved by the Control Officer. These procedures shall comply with established EPA/DOE/CARB Reference Testing Methods. Where source sampling is required, procedures shall be used as specified in Section 180 of the NWCAA Regulation.

580.114 The owner or operator of any source of VOC emissions subject to the provisions of Section 580 shall:

580.1141 Install, operate, and maintain, process and/or control equipment, monitoring instruments or procedures as necessary to comply with paragraph 580.113 of this section; provided that use of Monitoring instruments or procedures is required only as specified in EPA/DOE/CARB Documents cited in subsection 580.113.

580.1142 Maintain, in writing, records and/or reports relating to monitoring instruments or procedures which will, upon review, document the compliance status of the VOC emission source or control equipment to the satisfaction of the Control Officer. Reports shall be forwarded to the Control Officer as required by procedures cited in 580.113. For sources subject to 580.6 and 580.7, no records or reports are required.

580.1143 The provisions of the NWCAA Regulation regarding Notices of Construction shall apply to new or altered VOC emission source, and no person shall construct, install, or establish a new or altered VOC emission source except in compliance therewith.

PASSED: December 13, 1989 AMENDED: March 13, 1997

SECTION 590 – PERCHLOROETHYLENE DRY CLEANERS

590.1 Applicability. This section applies to all dry cleaning systems using perchloroethylene.

590.2 Definitions.

AREA SOURCE - Any perchloroethylene dry cleaning facility that does not have the potential to emit more than 10 tons per year of perchloroethylene to the atmosphere.

BIWEEKLY - Any 14-day period of time.

CARBON ADSORBER - A bed of activated carbon into which an air-perchloroethylene gas-vapor stream is routed and which adsorbs the perchloroethylene on the carbon.

DESORPTION - Regeneration of a carbon adsorber by removal of the perchloroethylene adsorbed onto the carbon.

HALOGENATED HYDROCARBON DETECTOR - A portable device capable of detecting vapor concentrations of perchloroethylene of 25 parts per million by volume and indicating a concentration of 25 parts per million by volume or greater by emitting an audible or visual signal that varies as the concentration changes.

PERCEPTIBLE LEAKS - Any perchloroethylene vapor or liquid leaks that are obvious from:

- a. The odor of perchloroethylene; or
- b. Visual observation, such as pools or droplets of liquid; or
- c. The detection of gas flow by passing fingers over the surface of equipment.

PERCHLOROETHYLENE GAS ANALYZER - A flame ionization detector, photoionization detector, or infrared analyzer capable of detecting vapor concentrations of perchloroethylene of 25 parts per million by volume.

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 of 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