

**OVERVIEW OF AIR MANAGEMENT REGULATION XIV**  
**CONTROL OF EMISSIONS FROM DRY CLEANING FACILITIES**  
**(EFFECTIVE DECEMBER 13, 2010)**

NOTE: The following document is a general overview summarizing the major requirements of Air Management Regulation XIV: Control of Emissions from Dry Cleaning Facilities, effective on December 13, 2010. Interested parties should refer to the Regulation text for specific conditions and requirements.

## **WHO IS AFFECTED BY THE REGULATION**

Dry cleaners that use dry cleaning solvents containing **Perchloroethylene ("PERC") [also known as DowPer™, PerSec®, Perklone™ D, Perklone™ DX, Tetrachloroethylene, or Tetrachloroethene]**, or **n-Propyl Bromide ("N-PB") [also known as Dry-Solv™ and Fabrisolv™]**.

## **GENERAL RESTRICTIONS ON PERC AND N-PB DRY CLEANING**

- Use of any **dry cleaning solvent containing PERC at existing co-located dry cleaning establishments (e.g. sharing a wall, ceiling, or floor with any commercial, industrial, residential, healthcare, or educational facilities) is phased out by December 31, 2013.** Dry cleaning establishments that are co-located to commercial or industrial facilities may apply for an exemption to the phase out by July 1, 2013. Stand-alone cleaning establishments are not affected.
- **Use of second and third generation dry cleaning machines is phased out by December 13, 2012.** (Dry Cleaners that have the potential to emit more than 10 tons of PERC or N-PB into the air, or consume 8,000 Liters or more of PERC or N-PB per year, must upgrade to fifth generation dry cleaning machines or better.)
- Use of any **dry cleaning solvent containing N-PB (such as Dry-Solv™ and Fabrisolv™) is banned at any co-residential or co-sensitive facility.** Dry cleaning establishments that are co-located to commercial or industrial facilities and stand-alone cleaning establishments must obtain an Air Management permit and license.

## **ACTIVITIES THAT ARE PROHIBITED BY THE REGULATION**

- Installation / modification of PERC or N-PB dry cleaning machines and associated equipment without a permit from Air Management Services (AMS). Dry cleaners must apply for an installation permit for existing dry cleaning machines and associated equipment by June 13, 2011. Installation permits must otherwise be obtained before any new dry cleaning machines and equipment can be installed, or such existing machines and equipment can be modified.
- Operation of any PERC or N-PB dry cleaning machines and associated equipment without an operating license from AMS. Once an installation permit is granted, dry cleaners must apply for an annual license to operate such machines and equipment.
- Use of PERC or N-PB dry cleaning machines to perform only washing or only drying. (This requirement effectively prohibits the use of first generation dry cleaning machines)
- Provision of self-service PERC or N-PB dry cleaning machines for use by the general public.
- Evaporate PERC or N-PB from the untreated water effluent of solvent water separators into the atmosphere without use of air control devices approved by AMS.
- Venting PERC or N-PB exhaust emissions from dry cleaning machines and associated equipment directly into the dry cleaning establishment or into any commercial, residential, healthcare, or educational facilities adjacent to the establishment.
- Discharge of PERC or N-PB contaminated waste (including untreated wastewater, still bottoms / sludge residues, filter media, dirt, lint, soils, or other deposits or residues from the dry cleaning process) into the public sewer system.

## OPERATIONAL REQUIREMENTS FOR ALL PERC AND N-PB DRY CLEANERS

- **PERC/N-PB Spill Cleanup** – By January 13, 2011, sorbent materials, or equivalent, must be used to clean up PERC or N-PB spills. A PERC or N-PB vapor proof container labeled “FOR SPILL CONTAINMENT ONLY” must store wet sorbent materials when spills occur. All PERC or N-PB spills and releases (including fires or explosions) must be reported immediately to AMS and appropriate emergency response agencies.
- **Operation of Refrigerated Condensers** - temperature of refrigerated condenser exhaust stream must be less than or equal to 45 degrees Fahrenheit. If equipped with pressure gauges, the refrigeration system’s high and low pressure readings must be kept per manufacturer’s specifications. The steam and condensing coils and machine must be kept free of lint and other buildup.
- **Draining Cartridge Filters** - must be drained inside the dry cleaning machine for a minimum of 24 hours (48 hour minimum for adsorptive cartridge filters) before disposal.
- **Treatment of PERC or N-PB Contaminated Waste Water** - use of a water separator and double carbon filtration (or equivalent) to treat wastewater before it is discharged to the public sewer. Any water discharged must meet Philadelphia Water Department Regulations.
- **Storage of PERC or N-PB Contaminated Wastes (Including Spent Cartridges)** - must be kept in properly labeled and tightly sealed containers.
- **PERC or N-PB Leak Detection Checks** - weekly inspections of dry cleaning equipment with an approved PERC or N-PB sampling meter. Inspections must be conducted while the dry cleaning equipment is operating.
- **Repairs of PERC or N-PB Dry Cleaning Machines / Equipment** - all leaks must be repaired within 24 hours of detection unless parts are unavailable. If the part needed is unavailable, the leaking component must be tagged or marked. The necessary parts must be ordered within two working days and the repair must be made within five working days of its receipt. If leaking dry cleaning equipment is not repaired within 15 working days, it must be deactivated until repairs are completed. **A fugitive emissions  $\geq$  25 ppm PERC, or  $\geq$  10 ppm N-PB are violations.**
- **Recordkeeping** - records of regular maintenance per manufacturer’s specifications, leak repairs, solvent and load use, inspections, spills, proper aisle space, supply of spare parts, quarterly air sampling, and PERC or N-PB waste disposal shipments, must be retained onsite for a minimum of five years.

## ADDITIONAL REQUIREMENTS FOR CO-LOCATED PERC AND N-PB DRY CLEANING ESTABLISHMENTS (Within one year of the effective date of this regulation)

- **Exhaust Requirement** - the airborne concentration of PERC or N-PB at any window, door, or air intake of neighboring facilities must be less than or equal to 40 ppb.
- **Ventilation / Isolation Requirements** - rooms containing the dry cleaning machines and associated equipment must be sealed off from the rest of the establishment by vapor barriers and be equipped with a separate exhaust system. In the alternative, Dry Cleaners may choose to install a ventilation system that produces one air change every five minutes and maintains negative air pressure for the entire facility.
- **Air Sampling of Co-Commercial Sites** – By December 13, 2011, dry cleaning facilities must obtain a twenty-four hour air sample from any co-located commercial site once every 3 months. If the air sample is  $> 40$  ppb but  $< 200$  ppb PERC, or  $> 40$  ppb but  $< 225$  ppb N-PB, corrective action must be taken within 30 days. If the concentration is above 200 ppb for PERC or 225 ppb for N-PB, all dry cleaning operations must cease immediately.

## FOR MORE INFORMATION

- Further information, including a copy of the regulation, expert reports considered by the APCB and minutes of APCB meetings can be found at the AMS web site at:  
<http://www.phila.gov/health/AirManagement/index.html>
- If you have trouble accessing the files on the website or if you have additional questions, please contact AMS at 215-685-7580.