



Small Business Assistance Program

Colorado Department of Public Health and Environment
<http://www.cdphe.state.co.us/ap/sbap.asp>

A Guide to Environmental Regulations for: Petroleum Dry Cleaners

If you own a petroleum dry cleaning facility in the state of Colorado you may be required to file an Air Pollutant Emission Notice (APEN) or obtain an air permit through the Colorado Department of Public Health and Environment, Air Pollution Control Division (Division). An APEN is a reporting form that tells the Division how much solvent your shop uses. The Division uses the APEN to keep track of the emissions that come from your shop and to determine if your shop requires an air permit.

What area is my business in?

Colorado is divided into two kinds of air quality areas: Attainment and Nonattainment. Attainment areas are in compliance with the Federal Clean Air Act; Nonattainment areas are not in compliance with the Federal Clean Air Act. Nonattainment areas have stricter rules than attainment areas.

- In attainment areas you must file an APEN with the Division when emissions of volatile organic compounds (VOC) exceed two tons per year. (That means you must file an APEN if you use approximately 570 gallons of solvent, or more, per year.)
- In non-attainment areas you must file an APEN with the Division when emissions of volatile organic compounds (VOC) exceed one ton per year (approximately 285 gallons, or more, per year).

At a petroleum-based dry cleaning facility, VOCs or "Volatile Organic Compounds" is another name for the solvents used to clean clothing. Water is not a VOC.

You can calculate the amount of VOCs from your facility by multiplying the number

of gallons of solvent used per year by the weight of the solvent in pounds per gallon. Divide by 2000 to determine "tons per year". The weight of the solvent can be found on the solvent's Manufacturer's Safety Data Sheet (MSDS). Your solvent supplier will have a copy of the MSDS for the particular solvent that your shop uses.

Permit filing requirements

Petroleum dry cleaners will need an Air Emissions Permit (also known as a Construction Permit) in any of the following four circumstances:

1. In an attainment area a permit is required if emissions equal five tons (about 1430 gallons), or more, per year.
2. In a nonattainment area a permit is required if emissions equal two tons (about 570 gallons), or more, per year.
3. A permit is required for any petroleum dry cleaner with a total dryer capacity of 84 pounds or more that was installed between December 14, 1982 and September 21, 1984 and uses more than 4,700 gallons of petroleum solvent per year.
4. A permit is required for any petroleum dry cleaner that has a total drum capacity of 84 pounds or more and that was installed or modified after September 21, 1984 no matter how much solvent is used.

If there is more than one petroleum solvent machine at the facility, the dryer capacity is the total of dryer capacities for all machines.

(Petroleum dry cleaners that fit either condition 3. or 4. are subject to a federal rule known as New Source Performance Standards (NSPS), subpart JJJ.)

If the plant does not meet any of the above conditions, a permit is not required. However, an APEN may still be required.

The NSPS rule requires that all machines subject to the standard have a solvent recovery dryer and that it be properly installed, operated and maintained according to the manufacturer's recommendations. The cartridge filters for the machine must be drained in their sealed containers for at least 8 hours prior to their removal. The machines must be checked for leaks and repaired on a frequency consistent with the manufacturer's recommendations.

Operation of the solvent recovery dryer may be affected by the weight and type of clothes being cleaned. Heavier loads or material types may require longer recovery cycle times to adequately recover the solvent. The recovery cycle cools the solvent as it passes through a recovery condenser. Most of the solvent is recovered at the beginning of the recovery cycle. If the recovery cycle is working well, very little solvent should remain for recovery at the end of the cycle. The solvent is measured at the end of the recovery cycle. If the recovery cycle is lengthened, the amount of solvent recovered over time will decrease. If the machine is properly operated, the recovery rate should be less than 0.05 liters (1.7 fluid ounces) per minute during the end of the recovery cycle

Performance Test

Any petroleum dry cleaner that is subject to the NSPS rule must run a performance test to assure that the recovery device is recovering an adequate amount of solvent. The EPA performance test checks the effectiveness of the recovery device by measuring the amount of solvent recovered at the end of the drying/recovery cycle.

During the performance test, the solvent is diverted from the outlet point of the solvent-water separator and into a graduated cylinder. The graduated cylinder must be large enough to handle the volume of solvent received during the test. It may be useful to consult a qualified dry cleaning machine mechanic. The mechanic should be able to locate an existing diverter valve or install one to perform this test.

The NSPS test requirement defines the length of time that the solvent is measured as: "at the end of the recovery cycle and for at least one minute." To pass the performance test, the average solvent recovery rate must be less than 50 milliliters per minute (1.7 fluid ounces per minute). The performance test must be conducted for at least two weeks. During the test period, at least 50% of the loads processed through the dryer must be included in the test.

Test Procedure

Begin the testing at least one minute before the end of the recovery cycle.

1. On a piece of paper, record the time that the testing starts.
2. Open the diverter valve and collect the solvent in a graduated cylinder.
3. Collect the solvent until the cycle ends.

4. Record the time that the recovery cycle ends.
5. Record the amount of solvent collected in milliliters (1.7 fluid ounces equals 50 milliliters).

Calculate the recovery rate

1. Subtract the start time from the end time to obtain the number of minutes for the load tested.
2. For each load tested, divide the volume of solvent collected by the amount of time, in minutes.
3. Repeat this process for each load tested.

Please see the attached **Petroleum Dry Cleaners Performance Test Log**, for an optional form to guide the operator through the test procedure.

For each load tested you should record the types of articles cleaned and the total length of the drying cycle.

The operator or owner must maintain a record of the test results. The NSPS rule does not require that the results from the test be submitted to the EPA. However, keep the results at your shop because the test results may be requested during an inspection conducted by Division inspectors or the Division's representatives. An inspector may compare the length of the recovery cycle and the load type against the performance test. If the length of the recovery cycle is less than a comparable load during the performance test, it may be cause for concern. Failure to adequately perform this test may be viewed as a violation of air quality regulations.

The NSPS rule allows the dry cleaner to perform the solvent recovery test using different equipment or procedures. If you wish to use an alternate method you must first obtain permission from the EPA.

Help is Available

If you want some help or advise or need a copy of the reporting forms such as the Dry Cleaner APEN or the Performance Test Log for the Performance Test, you can call the Small Business Assistance Program at 303-692-3175 or 303-692-3148. You can also call the Air Pollution Control Division at 303-692-3100.