



# Air Pollution Control Division

## Small Business Assistance Program

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### 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.

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#### ➤ AIR EMISSION REPORTING AND PERMITTING REQUIREMENTS

In Colorado, obtaining an air permit is a two-step process. The first step is to report your air emissions through the submission of an Air Pollution Emission Notice (APEN) to the Division. For businesses with emissions above permitting thresholds, the second step involves obtaining an air permit prior to construction or operation of the unit. Reporting and permitting thresholds are presented in Attachment A.

Reporting and Permitting thresholds can be more stringent if your source is in a nonattainment area because these areas exceed the National Ambient Air Quality Standards for regulated pollutants. VOCs and NO<sub>x</sub> are considered precursors to Ozone and therefore businesses in the 8-hour nonattainment area must report at the nonattainment thresholds for those pollutants. All other pollutants are reported at the Attainment thresholds. To view a map of the nonattainment area in Colorado, visit: [www.colorado.gov/pacific/cdphe/ozone-information](http://www.colorado.gov/pacific/cdphe/ozone-information)

The Division will use the information provided on your APEN to determine whether your business requires an air permit. If an air permit is required, the APEN will become part of your permit application package.

- 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 (SDS). Your solvent supplier will have a copy of the SDS for the particular solvent that your shop uses.

APENS are valid for five years and must be updated when certain changes occur at the site. It is important to submit revised or renewed APENS to keep your air permit accurate and up-to-date.

### ➤ **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.

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

In Colorado, Construction Permits are issued in two phases: “Issuance 1” and “Final Approval to Operate”.

- Issuance 1 of a permit allows the plant to be constructed and begin operation. The source must self-certify to Issuance 1 of the permit once in operation within 180 days of receiving the first issued permit.
- After the owner certifies that the operation is in compliance with the conditions of Issuance 1 of the permit, the Division issues a “Final Approval to Operate” letter to operate under the conditions of Construction Permit Issuance 1. This letter confirms the completion of the self-certification requirements of that permit. The source is issued an invoice for processing time for this letter, and must pay the invoice within 30 days of receipt. Please note that if the permit processing fee is not paid within 30 days of receipt, you will be in violation of your permit conditions and may result in revocation of the permit.
- If the source modifies an existing permit, the source will be issued Construction Permit Issuance 2 (Issuance number determined by modification sequence). The source may have to self-certify to the new Issuance if required by the permit.

A permit describes key areas that an operator needs to address. The permit defines the type of air pollution control measures to be used, limits the annual production at

the site, provides guidelines for opacity (how dense the visible emissions are allowed to be), and includes recordkeeping requirements.

### ➤ **New Source Performance Standard JJJ Requirements**

- Facilities with dry cleaning machines using hydrocarbon and other petroleum-derived solvents (e.g., DF-2000, EcoSolv, GenX) may be subject to the NSPS (40 CFR Part 60, Subpart JJJ) if the manufacturer's rated capacity from all dry cleaning machines combined at the facility is equal to or greater than 84 pounds.
- Petroleum machines installed between 12/14/82 and 9/21/84 are exempt from the NSPS if the annual facility petroleum solvent usage is less than 4,700 gallons per year.

The NSPS subpart JJJ 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.

## ➤ WHAT FEES APPLY?

**Filing Fee:** A filing fee is required for each APEN submitted. This includes APENs submitted for administrative changes (e.g., change in ownership, change in location). Fees are subject to change by the legislature on an annual basis.

**Annual Fee:** All sources required to file APENs must pay annual fees. The Division bills each source subject to an APEN filing fee per ton of criteria pollutants emitted

and per ton of non-criteria (hazardous air pollutants) emitted. The Division mails invoices for these fees in May or June of each year (these fees account for the emissions from the previous year's operation). Fees are subject to change by the legislature on an annual basis.

**Permit Processing Fee:** In addition to the APEN filing fee, permit-processing fees will be assessed at an hourly rate. If the total processing time is anticipated to be more than 30 hours the Division will contact the applicant in writing and provide an estimate of the projected processing time. The applicant can waive this notice by submitting a letter making this request when the application is submitted.

Current fee information is available online at:

[www.colorado.gov/pacific/cdphe/emissions-and-permitting-fees](http://www.colorado.gov/pacific/cdphe/emissions-and-permitting-fees)

### ➤ **SMALL BUSINESS ASSISTANCE**

The Small Business Assistance Program (SBAP) is available to answer questions you may have regarding environmental issues at your site. The SBAP can help you understand regulations, determine what your company has to do to be in compliance, help you fill out required forms, calculate your emissions, or provide information by presenting a workshop for your company or for your industry. We are here to help, and our services are always free.

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### ➤ **RESOURCES**

- ❖ Air Pollution Control Division (APCD): (303) 692-3100
- ❖ Small Business Assistance Program: (303) 692-3175 or 3148
- ❖ Small Business Ombudsman: (303) 692-2135

## ATTACHMENT A

<b>APEN REPORTING THRESHOLDS</b>		
<b>Pollutant Category</b>	<b>Uncontrolled Actual Emissions</b>	
	<b>Attainment Area</b>	<b>Non-attainment Area</b>
Criteria Pollutants	2 tons per year	1 ton per year
Lead	100 pounds per year	100 pounds per year
Non-Criteria Pollutants <sup>1</sup>	≥ 250 pounds per year of any individual non-criteria reportable pollutant	≥ 250 pounds per year of any individual non-criteria reportable pollutant

### AIR PERMITTING THRESHOLDS

<i>Pollutant Category</i>	<b>Uncontrolled Actual Emissions</b>	
	<b>Attainment Area (tons per year)</b>	<b>Non-attainment Area (tons per year)</b>
PM-10	5	1
Total suspended particulates	10	5
Volatile organic compounds	5	2
Carbon monoxide	10	5
Sulfur dioxide	10	5
Nitrogen oxides	10	5
Lead	200 pounds per year	200 pounds per year
Other criteria pollutants: fluorides, sulfuric acid mist, hydrogen sulfide, total reduced sulfur, reduced sulfur compounds.	2	2