



**A GUIDE TO
COMPLIANCE
REQUIREMENTS
FOR DRY CLEANERS**

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**GUIDE TO CLEAN AIR ACT REQUIREMENTS FOR
PERCHLOROETHYLENE DRY CLEANERS**

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INTRODUCTION

On Sept. 22, 1993, the Environmental Protection Agency (EPA) promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for perchloroethylene (PCE) dry cleaning. This rule provides specific requirements that dry cleaners using PCE must meet to comply with the 1990 Clean Air Act Amendments (CAAA).

We gratefully acknowledge the ability to utilize this guide which was produced by the Program for Toxic Air Pollutant Studies (PTAPS) at the Iowa Waste Reduction Center. It was developed to assist dry cleaners in meeting these requirements.

The requirements that each dry cleaner must meet depend on the type of machines used (transfer or dry-to-dry), the amount of PCE a facility purchased in the preceding twelve months, and whether construction or reconstruction of the facility began before or after Dec. 9, 1991.

The first step in determining your requirements is to calculate the total gallons of PCE purchased over the last twelve (12) months.

_____ gallons

The next step requires using the chart below to determine the source category that applies to your facility based on total PCE purchased and the type of equipment used. It is recommended that the correct source category be circled.

SMALL AREA SOURCE requirements apply if PCE purchased over the preceding 12 month period was:

<u>For facilities with</u>	<u>Amount of PCE Purchased</u>
Dry-to-dry machines only	less than 140 gallons
Combination of transfer and dry-to-dry systems	less than 140 gallons
Transfer system(s) only	less than 200 gallons

LARGE AREA SOURCE requirements apply if PCE purchased over the preceding 12 month period was:

<u>For facilities with</u>	<u>Amount of PCE Purchased</u>
Dry-to-dry machines only	140 - 2100 gallons
Combination of transfer systems and dry-to-dry systems	140 - 1800 gallons
Transfer system(s) only	200 - 1800 gallons

MAJOR SOURCE requirements apply if PCE purchased over the preceding 12 month period was:

<u>For facilities with</u>	<u>Amount of PCE Purchased</u>
Dry-to-dry machines only	2100 + gallons
Combination of transfer system(s) and dry-to-dry systems	1800 + gallons
Transfer system(s) only	1800 + gallons

Important note: Transfer system(s) means any system where washing and drying are performed in different machines. This may be a washer and dryer, washer and reclaimer, or dry-to-dry machine and reclaimer. Dry-to-dry machines are considered a transfer system if clothes are transferred to different machine(s).

Once the source category is established, the next step is to determine if your facility is new or existing. If construction or reconstruction of your facility **began**:

on or after Dec. 9, 1991, then it is a **NEW SOURCE**.

before Dec. 9, 1991, it is an **EXISTING SOURCE**.

Reconstructed means any component of the dry cleaning system is replaced (including equipment) and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a new comparable source.

At this point, you should know what source category requirements apply. The remaining pages explain the requirements for new and existing facilities in each source category.

EPA reports discussed in the guide should be sent to:

**Attn: Tamera Thompson
Virginia Department of Environmental Quality - Air Division
629 East Main Street
P. O. Box 10009
Richmond, Virginia 23240-0009**

For more information, please contact the Virginia Small Business Assistance Program at (804) 698-4394.

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Perchloroethylene Dry Cleaners

Requirements for Existing Small Area Sources

_____ Pollution control equipment (refrigerated condenser or carbon adsorber) is not required.

By **June 18, 1994**, each facility must:

[INITIAL NOTIFICATION REPORT REQUIREMENTS]

_____ File an initial notification report, signed by a responsible company official. To satisfy this requirement complete the **Initial Notification Report Form** in [Attachment A](#), and send to the address on the INTRODUCTION sheet of this guide.

By **Dec. 20, 1993**, each facility must:

[POLLUTION PREVENTION OPERATING PROCEDURE REQUIREMENTS]

_____ Maintain on-site, a copy of the design specifications and operating manuals for each machine and control device at the facility.

_____ Keep machine doors closed at all times except when transferring clothes.

_____ Operate and maintain system according to manufacturer's specifications and recommendations.

_____ Drain cartridge filters in their housings or other sealed container for 24 hours before removing from facility.

_____ Store all PCE solvent and waste in sealed containers.

[POLLUTION PREVENTION INSPECTION AND REPAIR REQUIREMENTS]

_____ Inspect equipment every two weeks for perceptible leaks while the dry cleaning system is operating. The sample **EQUIPMENT INSPECTION AND REPAIR LOG** in [Attachment D](#) lists the components that must be inspected.

_____ Maintain for five years records of inspection dates, name and location of system components where leaks are found, dates of repair and record of written or verbal part orders. The sample **EQUIPMENT INSPECTION AND REPAIR LOG** in [Attachment D](#) may be copied and used for this.

_____ Repair perceptible leaks within 24 hours. Parts must be ordered within two working days and installed within five days of receipt.

[POLLUTION PREVENTION RECORD KEEPING REQUIREMENTS]

_____ Perform the following on the first working day of every month:

1. Sum of the volume of PCE purchases made in each of the previous 12 months. Show calculations.
2. Record purchases for each month in a log. The sample **PCE PURCHASE LOG** provided in [Attachments E1 and E2](#) may be copied and used for this. [Attachment E1](#) is for the first 12 months of record keeping, and [Attachment E2](#) should be used forever after.
3. If no purchases were made, record that zero gallons were purchased.
4. Evaluate and record the total sum to determine the new source category.

NOTE: If the source category increases, then new requirements must be met within 180 days or by Sept. 22, 1996, which ever is later. Within 30 days after meeting new requirements the owner/operator must send a letter to the reporting address on the INTRODUCTION sheet, stating:

1. The new yearly PCE consumption.
 2. Whether or not compliance is met for items on this sheet.
 3. All information contained in the statement is correct and accurate.
5. Maintain all records for five years.

By **June 18, 1994**, each facility must:

[POLLUTION PREVENTION COMPLIANCE REPORT REQUIREMENTS]

_____ Send the **Pollution Prevention Compliance Form** by registered mail, signed by responsible company official certifying:

1. Yearly PCE consumption.
2. Whether or not compliance is met for items in this guide.
3. All information contained in the statement is correct and accurate.

To satisfy this requirement complete the **Pollution Prevention Compliance Report Form** in [Attachment B](#), and send to the address on the INTRODUCTION sheet of this guide.

For more information, please contact Virginia Small Business Assistance Program at (804) 698-4394..

Perchloroethylene Dry Cleaners
Requirements for New Small Area Sources and New Large Area Sources

By **Sept. 20, 1993**, each facility must:

[CONTROL EQUIPMENT REQUIREMENTS]

_____ Use a dry-to-dry system with a refrigerated condenser.

If a transfer systems was installed between Dec. 8, 1991, and Sept. 22, 1993, then:

_____ A refrigerated condenser or carbon adsorber may be used until Sept. 22, 1996. By Sept. 23, 1996 a dry-to-dry system with a refrigerated condenser must be used.

_____ Use a diverter valve with the refrigerated condenser so air drawn into the dry cleaning machine when the door opens does not pass through the refrigerated condenser.

[CONTROL EQUIPMENT MONITORING AND RECORDING REQUIREMENTS]

When using a **refrigerated condenser** the following checks must be made weekly:

_____ For a **dry-to-dry machine, dryer or reclaimer**, measure the temperature at the end of the cycle, on the outlet side of the refrigerated condenser. (The temperature should be 45°F or less.)

_____ For **transfer systems**, measure the inlet and outlet temperature difference of the air-PCE mixture through the refrigerated condenser on **washers**. (It should be 20°F or greater.) This includes a dry-to-dry machine when used with a reclaimer.

_____ Maintain records of date of checks and temperature recorded. The sample **MONITORING LOG FOR REFRIGERATED CONDENSER**, in [Attachment F1](#), may be copied and used for this.

_____ If any parameters are not within the limits, adjustments and repairs must be made. Parts must be ordered within two working days of detection, and must be installed within five working days after receipt.

When using a **carbon adsorber** (applies to systems **installed between Dec. 9, 1991, and Sept. 22, 1993**) the following checks must be made weekly:

_____ Measure the PCE concentration **out of the carbon adsorber** with a colorimetric detector tube while the machine is venting to that carbon adsorber at the end of the last cycle prior to desorption of the carbon adsorber. The PCE concentration must not exceed 100 ppm.

_____ Maintain records of date of checks and temperature recorded. The sample **MONITORING LOG FOR CARBON ADSORBER**, in [Attachment F2](#), may be copied and used for this.

_____ If any parameters are not within the limits, adjustments and repairs must be made. Parts must be ordered within two working days of detection, and must be installed within five working days after receipt.

By **June 18, 1994**, or within 30 days after beginning operation, each facility must:

[CONTROL EQUIPMENT COMPLIANCE REPORT REQUIREMENTS]

_____ Send the **Control Equipment Compliance Report Form** by registered mail, signed by responsible company official certifying:

1. Yearly PCE consumption.
2. Whether or not compliance is met for items on this guide.
3. All information contained in the statement is correct and accurate.

To satisfy this requirement, complete the **Control Equipment Compliance Report Form** in [Attachment C](#) and send to the address on the INTRODUCTION sheet of this guide.

By **June 18, 1994**, each facility must:

[INITIAL NOTIFICATION REPORT REQUIREMENTS]

_____ File an initial notification report, send by registered mail, signed by a responsible company official. To satisfy this requirement complete the **Initial Notification Report Form** in [Attachment A](#), and send to the address on the INTRODUCTION sheet of this guide. of this guide.

[POLLUTION PREVENTION OPERATING PROCEDURE REQUIREMENTS]

- _____ Maintain on-site, a copy of the design specifications and operating manuals for each machine and control device at the facility.
- _____ Keep machine doors closed at all times except when transferring clothes.
- _____ Operate and maintain system according to manufacturer's specifications and recommendations.
- _____ Drain cartridge filters in their housings or other sealed container for 24 hours before removing from facility.
- _____ Store all PCE solvent and waste in sealed containers.

[POLLUTION PREVENTION INSPECTION AND REPAIR REQUIREMENTS]

- _____ **New Large Area Sources** should inspect equipment **every week** for perceptible leaks while the dry cleaning system is operating. **New Small Area Sources** should do it **every other week**. The sample **EQUIPMENT INSPECTION AND REPAIR LOG** in [Attachment D](#) lists the components that must be inspected.
- _____ Maintain for five years records of inspection dates, name and location of system components where leaks are found, dates of repair and record of written or verbal part orders. The sample **EQUIPMENT INSPECTION AND REPAIR LOG** in [Attachment D](#) may be copied and used for this.
- _____ Repair perceptible leaks within 24 hours. Parts must be ordered within two working days and installed within five days of receipt.

[POLLUTION PREVENTION RECORD KEEPING REQUIREMENTS]

_____ On the first working day of every month the following calculations must be performed:

1. Sum of the volume of PCE purchases made in each of the previous 12 months. Show calculation.
2. Record purchases for each month in a log. The sample **PCE PURCHASE LOG** provided in [Attachments E1 and E2](#) may be copied and used for this. [Attachment E1](#) is for the first 12 months of record keeping, and [Attachment E2](#) should be used forever after.
3. If no purchases were made, record zero gallons purchased.
4. Evaluate and record the total sum to determine the new source category.

NOTE: If the source category increases then new requirements must be met within 180 days or by Sept. 22, 1996, which ever is later. Within 30 days after meeting new requirements the owner/operator must send a letter to the reporting address on the INTRODUCTION sheet, stating:

1. The new yearly PCE consumption.
 2. Whether or not compliance is met for items on this sheet.
 3. All information contained in the statement is correct and accurate.
5. Maintain all records for five years.

By **June 18, 1994**, or immediately after beginning operation, each facility must:

[POLLUTION PREVENTION COMPLIANCE REPORT REQUIREMENTS]

_____ Send a registered letter signed by responsible company official certifying:

1. Yearly PCE consumption.
2. Whether or not compliance is met for items on this guide.
3. All information contained in the statement is correct and accurate.

To satisfy this requirement complete the **Pollution Prevention Compliance Report Form** in [Attachment B](#), and send to the address on the INTRODUCTION sheet of this guide.

For more information, please contact the Virginia Small Business Assistance Program at (804) 698-4394.

Perchloroethylene Dry Cleaners

Requirements for Existing Large Area Sources

By **June 18, 1994**, each facility must:

[INITIAL NOTIFICATION REPORT REQUIREMENTS]

- _____ Send a report registered mail, signed by a responsible company official, to the reporting address on the INTRODUCTION sheet. To satisfy this requirement complete the **Initial Notification Report Form** in Attachment A, and send to the address on the INTRODUCTION sheet of this guide.

[POLLUTION PREVENTION OPERATING PROCEDURE REQUIREMENTS]

- _____ Maintain on-site, a copy of the design specifications and operating manuals for each machine and control device at the facility.
- _____ Keep machine doors closed at all times except when transferring clothes.
- _____ Operate and maintain system according to manufacturer's specifications and recommendations.
- _____ Drain cartridge filters in their housings or other sealed container for 24 hours before removing from facility.
- _____ Store all PCE solvent and waste in sealed containers.

[POLLUTION PREVENTION INSPECTION AND REPAIR REQUIREMENTS]

- _____ Inspect equipment every week for perceptible leaks while the dry cleaning system is operating. The sample **EQUIPMENT INSPECTION AND REPAIR LOG** in Attachment D lists the components that must be inspected.
- _____ Maintain for five years records of inspection dates, name and location of system components where leaks are found, dates of repair and record of written or verbal part orders. The sample **EQUIPMENT INSPECTION AND REPAIR LOG** in Attachment D may be copied and used for this.
- _____ Repair perceptible leaks within 24 hours. Parts must be ordered within two working days and installed within five days of receipt.

[POLLUTION PREVENTION RECORD KEEPING REQUIREMENTS]

_____ On the first working day of every month the following calculations must be performed:

1. Sum of the volume of PCE purchases made in each of the previous 12 months. Show calculations.
2. Record purchases for each month in a log. The sample **PCE PURCHASE LOG** provided in [Attachments E1 and E2](#) may be copied and used for this. [Attachment E1](#) is for the first 12 months of record keeping, and [Attachment E2](#) should be used forever after.
3. If no purchases were made, record zero gallons purchased.
4. Evaluate and record the total sum to determine the new source category.

NOTE: If the source category increases then new requirements must be met within 180 days or by Sept. 22, 1996, which ever is later. Within 30 days after meeting new requirements the owner/operator must send a letter to the reporting address on the INTRODUCTION sheet, stating:

1. The new yearly PCE consumption.
 2. Whether or not compliance is met for items on this sheet.
 3. All information contained in the statement is correct and accurate.
5. Maintain all record for five years.

By **June 18, 1994**, each facility must:

[POLLUTION PREVENTION COMPLIANCE REPORT REQUIREMENTS]

_____ Send a registered letter signed by responsible company official certifying:

1. Yearly PCE consumption.
2. Whether or not compliance is met for items on this guide.
3. All information contained in the statement is correct and accurate.

To satisfy this requirement complete the **Pollution Prevention Compliance Report Form** in [Attachment B](#), and send to the address on the INTRODUCTION sheet of this guide.

By **Sept. 22, 1996**, each facility must:

[CONTROL EQUIPMENT REQUIREMENTS]

- _____ Use a refrigerated condenser. A carbon adsorber that was installed before Sept. 22, 1993, may be used in place of the refrigerated condenser.
- _____ Not vent the air-PCE mixture from the refrigerated condenser to the atmosphere until the washer door is open. This includes a dry-to-dry machine when used with a reclaimer.
- _____ Not use the same refrigerated condenser coil for a washer that is used by a dry-to-dry machine, dryer or reclaimer.
- _____ Use a diverter valve so air drawn into the dry cleaning machine when the door opens does not pass through the refrigerated condenser.
- _____ Never vent a carbon adsorber to the atmosphere.

[CONTROL EQUIPMENT MONITORING AND RECORDING REQUIREMENTS]

When a **refrigerated condenser** is used, the following checks must be made weekly:

- _____ For a **dry-to-dry machine, dryer or reclaimer**, measure the temperature at the end of the cycle, on the outlet side of the refrigerated condenser. (The temperature should be 45°F or less.)
- _____ Measure the inlet and outlet temperature difference of the air-PCE mixture through the refrigerated condenser on **washers**. (It should be 20°F or greater.) This includes a dry-to-dry machine when used with a reclaimer.
- _____ Maintain records of date of checks and temperature recorded. The sample **MONITORING LOG FOR REFRIGERATED CONDENSER**, in [Attachment F1](#), may be copied and used for this.
- _____ If parameters are not within limits, adjustments and repairs must be made. Parts must be ordered within two working days of detection and must be installed within five working days after receipt.

When a **carbon adsorber** is used, the following checks must be made weekly:

- _____ Measure the PCE concentration **out of the carbon adsorber** with a colorimetric detector tube while the machine is venting to that carbon adsorber at the end of the last cycle prior to desorption of the carbon adsorber. The PCE concentration must not exceed 100 ppm.
- _____ Provide a sampling port for monitoring within the exhaust outlet of the carbon adsorber that is easily accessible and located at least 8 stack or duct diameters downstream from any flow disturbance such as a bend, expansion, contraction, or outlet; downstream from no other inlet; and 2 stack or duct diameters upstream from any flow disturbance.
- _____ Maintain records of date of checks and temperature recorded. The sample **MONITORING LOG FOR CARBON ADSORBER**, in [Attachment F2](#), may be copied and used for this.
- _____ If parameters are not within limits, adjustments and repairs must be made. Parts must be ordered within two working days of detection and must be installed within five working days after receipt.

By **Oct. 22, 1996**, each facility must:

[CONTROL EQUIPMENT COMPLIANCE REPORT REQUIREMENTS]

- _____ Send a registered letter signed by responsible company official certifying
 1. Yearly PCE consumption.
 2. Whether or not compliance is met for items on this guide.
 3. All information contained in the statement is correct and accurate.

To satisfy this requirement complete the **Control Equipment Compliance Report Form** in [Attachment C](#), and send to the address on the INTRODUCTION sheet of this guide.

For more information, please contact the Virginia Small Business Assistance Program at (804) 698-4394.

**Perchloroethylene Dry Cleaners
Requirements for New Major Sources**

By **Sept. 22, 1993**, each facility must:

[CONTROL EQUIPMENT REQUIREMENTS]

For dry-to-dry systems:

_____ Use a dry-to-dry system with a refrigerated condenser.

If a transfer systems was installed between Dec. 8, 1991, and Sept. 22, 1993:

_____ A refrigerated condenser or carbon adsorber may be used until Sept. 22, 1996. By Sept. 23, 1996, a dry-to-dry system with a refrigerated condenser must be used or a transfer system with a room enclosure must be used. All air from the room enclosure must be vented through a carbon adsorber.

_____ Use a diverter valve so air drawn into the dry cleaning machine when the door opens does not pass through the refrigerated condenser.

_____ Pass PCE gas-vapors from inside drum through a carbon adsorber after the cycle is complete, but before or as the door of the machine is opened.

[CONTROL EQUIPMENT MONITORING AND RECORDING REQUIREMENTS]

When a **refrigerated condenser** is used, the following equipment checks must be made weekly:

_____ For a **dry-to-dry machine, dryer or reclaimer**, measure the temperature at the end of the cycle, on the outlet side of the refrigerated condenser. (The temperature should be 45°F or less.)

_____ For **transfer systems**, measure the inlet and outlet temperature difference of the air-PCE mixture through the refrigerated condenser on washers. (It should be 20°F or greater.) This includes a dry-to-dry machine when used with a reclaimer.

_____ Maintain records of date of checks and temperature recorded. The sample **MONITORING LOG FOR REFRIGERATED CONDENSER**, in [Attachment F1](#), may be copied and used for this.

_____ If parameters are not within the limits, adjustments and repairs must be made. Parts must be ordered within two working days of detection, and must be installed within five working days after receipt.

When a **carbon adsorber** is used, the following equipment checks must be made weekly:

_____ Measure the PCE concentration **out of the carbon adsorber** with a colorimetric detector tube while the machine is venting to that carbon adsorber at the end of the last cycle prior to desorption of the carbon adsorber. The PCE concentration must not exceed 100 ppm.

- _____ Provide a sampling port for monitoring within the exhaust outlet of the carbon adsorber that is easily accessible and located at least 8 stack or duct diameters downstream from any flow disturbance such as a bend, expansion, contraction, or outlet; downstream from no other inlet; and 2 stack or duct diameters upstream from any flow disturbance.
- _____ Measure the PCE concentration in the open space above articles at the rear of the drum immediately after the door is opened at the end of the cycle with a colorimetric detector tube. (Needs to be 300 ppm or less.)
- _____ Maintain records of date of checks and temperature recorded. The sample **MONITORING LOG FOR CARBON ADSORBER**, in [Attachment F2](#), may be copied and used for this.
- _____ If parameters are not within limits, adjustments and repairs must be made. Parts must be ordered within two working days of detection, and must be installed within five working days after receipt.

By **Oct. 22, 1996**, or within 30 days after beginning operation, each facility must:

[CONTROL EQUIPMENT COMPLIANCE REPORT REQUIREMENTS]

- _____ Send a registered letter signed by responsible company official certifying:
 1. Yearly PCE consumption.
 2. Whether or not compliance is met for items on this guide.
 3. All information contained in the statement is correct and accurate.

To satisfy this requirement complete the **Control Equipment Compliance Report Form** in [Attachment C](#), and send to the address on the INTRODUCTION sheet of this guide.

By **June 18, 1994**, each facility must:

[INITIAL NOTIFICATION REPORT REQUIREMENTS]

- _____ Send a report registered mail, signed by a responsible company official to the reporting address on the INTRODUCTION sheet. To satisfy this requirement complete the EPA recommended form **Initial Notification Report Form** in [Attachment A](#), and send to the address on the INTRODUCTION sheet of this guide.

[POLLUTION PREVENTION OPERATING PROCEDURE REQUIREMENTS]

- _____ Maintain on-site, a copy of the design specifications and operating manuals for each machine and control device at the facility.
- _____ Keep machine doors closed at all times except when transferring clothes.
- _____ Operate and maintain system according to manufacturer's specifications and recommendations.
- _____ Drain cartridge filters in their housings or other sealed container for 24 hours before removing from facility.
- _____ Store all PCE solvent and waste in sealed containers.

[POLLUTION PREVENTION INSPECTION AND REPAIR REQUIREMENTS]

- _____ Inspect equipment every week for perceptible leaks while the dry cleaning system is operating. The sample **EQUIPMENT INSPECTION AND REPAIR LOG** in [Attachment D](#) lists the components that must be inspected.

- _____ Maintain for five years records of inspection dates, name and location of system components where leaks are found, dates of repair and record of written or verbal part orders. The sample **EQUIPMENT INSPECTION AND REPAIR LOG** in [Attachment D](#) may be copied and used for this.

- _____ Repair perceptible leaks within 24 hours. Parts must be ordered within two working days and installed within five days of receipt.

[POLLUTION PREVENTION RECORD KEEPING REQUIREMENTS]

- _____ On the first day of every month the following calculations must be performed:
 1. Sum of the volume of PCE purchases made in each of the previous 12 months.
 2. Record purchases for each month in a log. The sample **PCE PURCHASE LOG** provided in [Attachments E1 and E2](#) may be copied and used for this. [Attachment E1](#) is for the first 12 months of record keeping, and [Attachment E2](#) should be used forever after.
 3. If no purchases were made, then record zero gallons purchased.
 4. Evaluate and record the total sum to determine the new source category.
 5. Maintain all record for five years.

By **June 18, 1994**, or immediately after beginning operation, each facility must:

[POLLUTION PREVENTION COMPLIANCE REPORT REQUIREMENTS]

- _____ Send a registered letter signed by responsible company official certifying:
 1. Yearly PCE consumption.
 2. Whether or not compliance is met for items on this guide.
 3. All information contained in the statement is correct and accurate.

To satisfy this requirement complete the **Pollution Prevention Compliance Report Form** in [Attachment B](#), and send to the address on the INTRODUCTION sheet of this guide.

For more information, please contact the Virginia Small Business Assistance Program at (804) 698-4394.

**Perchloroethylene Dry Cleaners
Requirements for Existing Major Sources**

By **June 18, 1994**, each facility must:

[INITIAL NOTIFICATION REPORT REQUIREMENTS]

- _____ Send a report registered mail, signed by a responsible company official to the reporting address on the INTRODUCTION sheet. To satisfy this requirement complete the **Initial Notification Report Form** in [Attachment A](#), and send to the address on the INTRODUCTION sheet of this guide.

[POLLUTION PREVENTION OPERATING PROCEDURE REQUIREMENTS]

- _____ Maintain on-site, a copy of the design specifications and operating manuals for each machine and control device at the facility.
- _____ Keep machine doors closed at all times except when transferring clothes.
- _____ Operate and maintain system according to manufacturers specifications and recommendations.
- _____ Drain cartridge filters in their housings or other sealed container for 24 hours before removing from facility.
- _____ Store all PCE solvent and waste in sealed containers.

[POLLUTION PREVENTION INSPECTION AND REPAIR REQUIREMENTS]

- _____ Inspect equipment every week for perceptible leaks while the dry cleaning system is operating. The sample **EQUIPMENT INSPECTION AND REPAIR LOG** in [Attachment D](#) lists the components that must be inspected.
- _____ Maintain for five years records of inspection dates, name and location of system components where leaks are found, dates of repair and record of written or verbal part orders. The sample **EQUIPMENT INSPECTION AND REPAIR LOG** in [Attachment D](#) may be copied and used for this.
- _____ Repair perceptible leaks within 24 hours. Parts must be ordered within two working days and installed within five days of receipt.

[POLLUTION PREVENTION RECORD KEEPING REQUIREMENTS]

- _____ On the first day of every month the following calculations must be performed:
1. Sum of the volume of PCE purchases made in each of the previous 12 months. Show calculation.
 2. Record purchases for each month in a log. The sample **PCE PURCHASE LOG** provided in [Attachments E1 and E2](#) may be copied and used for this. [Attachment E1](#) is for the first 12 months of record keeping, and [Attachment E2](#) should be used forever after.
 3. If no purchases were made, record zero gallons purchased.
 4. Evaluate and record the total sum to determine new source category.
 5. Maintain all record for five years.

By **June 18, 1994**, each facility must:

[POLLUTION PREVENTION COMPLIANCE REPORT REQUIREMENTS]

_____ Send a registered letter signed by responsible company official certifying:

1. Yearly PCE consumption.
2. Whether or not compliance is met for items on this guide.
3. All information contained in the statement is correct and accurate.

To satisfy this requirement, complete the **Pollution Prevention Compliance Report Form** in [Attachment B](#) and send to the address on the INTRODUCTION sheet of this guide.

By **Sept. 22, 1996**, each facility must:

[CONTROL EQUIPMENT REQUIREMENTS]

For **dry-to-dry** systems:

- _____ Use a refrigerated condenser. A carbon adsorber that was installed before Sept. 22, 1993, may be used in place of the refrigerated condenser.
- _____ Not vent the air-PCE mixture from the refrigerated condenser to the atmosphere until the washer door is open. This includes a dry-to-dry machine when used with a reclaimer.
- _____ Not use the same refrigerated condenser coil for a washer that is used by a dry-to-dry machine, dryer or reclaimer.
- _____ Use a diverter valve so air drawn into the dry cleaning machine when the door opens does not pass through the refrigerated condenser.
- _____ Never vent a carbon adsorber to the atmosphere.

For **transfer systems** (this includes any system where washing and drying are performed in different machines):

- _____ Operate the dry cleaning machine inside an enclosed room. All air from the room must be vented through a carbon adsorber.

[CONTROL EQUIPMENT MONITORING AND RECORDING REQUIREMENTS]

When a **refrigerated condenser** is used, the following equipment checks must be made weekly:

- _____ For a **dry-to-dry machine, dryer or reclaimer**, measure the temperature at the end of the cycle, on the outlet side of the refrigerated condenser. (The temperature should be 45°F or less.)
- _____ For **transfer machines**, measure the inlet and outlet temperature difference of the air-PCE mixture through the refrigerated condenser on **washers**. (It should be 20°F or greater.) This includes a dry-to-dry machine when used with a reclaimer.

_____ Maintain records of date of checks and temperature recorded. The sample **MONITORING LOG FOR REFRIGERATED CONDENSER**, in [Attachment F1](#), may be copied and used for this.

_____ If parameters are not within limits, adjustments and repairs must be made. Parts must be ordered within two working days of detection and must be installed within five working days after receipt.

When using a **carbon adsorber**, the following equipment checks must be made weekly:

_____ Measure the PCE concentration **out of the carbon adsorber** with a colorimetric detector tube while the machine is venting to that carbon adsorber at the end of the last cycle prior to desorption of the carbon adsorber. The PCE concentration must not exceed 100 ppm.

_____ Provide a sampling port for monitoring within the exhaust outlet of the carbon adsorber that is easily accessible and located at least 8 stack or duct diameters downstream from any flow disturbance such as a bend, expansion, contraction, or outlet; downstream from no other inlet; and 2 stack or duct diameters upstream from any flow disturbance.

_____ Maintain records of date of checks and temperature recorded. The sample **MONITORING LOG FOR CARBON ADSORBER**, in [Attachment F2](#), may be copied and used for this.

By **Oct. 22, 1996**, each facility must:

[CONTROL EQUIPMENT COMPLIANCE REPORT REQUIREMENTS]

_____ Send a registered letter signed by responsible company official certifying:

1. Yearly PCE consumption.
2. Whether or not compliance is met for items on this guide.
3. All information contained in the statement is correct and accurate.

To satisfy this requirement complete the **Control Equipment Compliance Report Form** in [Attachment C](#), and send to the address on the INTRODUCTION sheet of this guide.

For more information, please contact the Virginia Small Business Assistance Program at (804) 698-4394.