# SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT COMPLIANCE DEPARTMENT

#### **COM 2280**

APPROVED: Signed DATE: December 28, 2006

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**Director of Compliance** 

TITLE: RULE 4672 – PETROLEUM SOLVENT DRY CLEANING

**OPERATIONS** 

SUBJECT: INSPECTION OF PETROLEUM SOLVENT DRY

CLEANING OPERATIONS

#### **OBJECTIVE:**

To establish policies and procedures for inspections of facilities subject to the requirements of District Rule 4672.

#### **PURPOSE:**

The rule limits the VOC emissions from petroleum solvent dry cleaning operations through operational requirements and specifies administrative requirements for record keeping. This policy is meant to ensure that the staff determines compliance while uniformly interpreting the requirements of the rule during the inspection of the facility. Specific sources may be permitted with special conditions that may restrict the source to a requirement more restrictive than that allowed under rule 4672.

#### **POLICY STATEMENT:**

#### I. GENERAL GUIDELINES

All petroleum solvent dry cleaning operations are required to follow the provisions of district rule 4672. In addition, they must follow the guidelines in the General Inspection Policy for the following areas:

- A. Inspection Assignments
- B. Complaint Assignments

## C. Pre-Inspection Procedures

1. Gather all necessary forms and equipment to conduct the inspection (i.e., inspection form(s), a copy of the rule, blank record keeping forms, and TLV detector, liquid "Snoop" spray bottle).

#### II. PERMIT REQUIREMENTS

# A. Applicability

The rule applies to all petroleum solvent washers, dryers, solvent filters, settling tanks, vacuum stills, and other containers and conveyors of petroleum solvents that are used in petroleum solvent dry cleaning facilities.

#### B. Exemptions

Dry cleaning facilities which exclusively use perchloroethylene dry cleaning solvents are not subject to this rule.

#### C. Violations

- 1. A Notice of Violation (NOV) will be issued to all non-permitted sources subject to this rule.
- 2. All violations of the rule and/or permit conditions shall be documented with an issued NOV. The source shall be provided a copy of the NOV and a verbal explanation as to the reason for its issuance.
- 3. If the permit condition has requirements or standards similar to those in the rule, the inspector will enforce the more stringent standard or requirement. If the permit condition references or essentially quotes the regulation, the NOV will be issued for a violation of both Rule 2070 and Rule 4672.
- 4. A follow-up inspection is required to verify compliance if compliance was not attained during the inspection in which the violation was observed. If evidence of compliance cannot be achieved, further enforcement action shall be taken per the District's NOV Policy.

#### D. Permit Conditions

- 1. Verify that the solvent specified by the permit is the solvent in use.
- 2. Some permits state, "A portable hydrocarbon detection instrument or District-approved alternative method shall be used for detection of vapor leaks." The rule defines liquid and vapor leaks as being

- "determined by visual inspection." (Section 3.4). If the facility does not have a portable hydrocarbon detection instrument, the District-approved alternative method shall be visual inspection.
- 3. Verify that the amount of dry cleaning solvent used does not exceed the permit limit.

#### III. INSPECTION PROCEDURES

Upon arrival at the facility determine if any solvent odors can be detected outside and from within the facility. The presence of odors can be an indication of leaks from the dry cleaning machines or other equipment. After entering the facility, meet with the owner/operator, identify yourself and exchange business cards. Inform them of the purpose of the inspection and explain that they will be advised of the results upon completion of the inspection.

The following is a recommended inspection sequence for Solvent Dry Cleaning facilities.

- A. Conduct a Pre-Inspection Interview.
  - 1. Verify whether the PTO is posted or readily available.
  - 2. Verify that the record keeping logs are being maintained. and review them for administrative and operational compliance.
  - 3. Verify waste disposal method.
  - 4. Discuss the PTO conditions.
  - 5. Discuss the rule requirements.
- B. Inspect Washing/Extracting/Drying equipment and operation and document violations. The equipment must be checked for leaks while in use to complete the inspection. If the equipment is not in operation, request that the operators insert a load of articles to be cleaned. If that is not possible, arrange a time to return to the facility to conduct that portion of the inspection. Proceed with the remainder of the inspection.
  - 1. Verify that the equipment in place is authorized by the PTO.
  - 2. When washing/extracting cycle of the equipment is in use, check for liquid leaks. The following definition shall be used for liquid leak a leak of liquid containing solvent of more than 1 drop every 3 minutes. Inspect the following areas visually:
    - a. Hose connections, union, couplings, valves
    - b. Machine door gasket and seating

- c. Filter head gasket and seating
- d. Pumps
- e. Base tanks and storage containers
- f. Water separators
- g. Filter sludge recovery
- h. Distillation unit
- i. Diverter valves
- j. Button trap gaskets
- k. Cartridge filter housings
- 1. Any other areas of the machine where solvent is in use.
- 3. When the drying/cool-down cycle of the equipment is in use, check for vapor leaks. The following definition shall be used for vapor leak - "A perceptible emission of solvent dry cleaning vapor from an unintended opening in the dry cleaning system, as indicated by the odor of solvent or the detection of gas flow by passing the fingers over the surface of the system." A TLV can be used to aid in identifying areas of vapor leak. Liquid "Snoop" can be used by spraying the solution on suspected vapor leak points and watching for bubbles generated from the gas. Section 6.2.3 of the rule (test methods) states, "Leak detection shall be performed with a portable hydrocarbon detection instrument in accordance with EPA Method 21" (TLV). However, because the definition of "leak" in the rule only includes a visual detection method, use of a TLV by the facility for detection of vapor leaks will not be required. (Note: Exxon DF-2000 dry cleaning solvent is not detected by the TLV). Inspect the following areas for fugitive and vapor leaks:
  - a. Solvent storage and base tanks.
  - b. Solvent evaporation during drying and cool-down process from any areas of the machine through which vapors flow.
  - c. Fugitive solvent emissions associated with any leaks from hose connections, union, couplings, valves, machine door gaskets and seating, the filter head gasket and seating, pumps, base tanks and storage containers, solvent water separators, distillation units, lint traps, button traps, filter canisters, and vent ducting.
  - d. Fugitive solvent emissions associated with the storage, processing, transfer and disposal of solvent containing wastes (still, muck cookers, solvent water separators, and waste water evaporators, waste containers, etc.) Leaks would indicate that the containers are not "closed".

- e. Emissions associated with closed transfer carts. Leaks would indicate that the cart is not considered "closed".
- 4. Verify that solvents are stored in closed containers.
- 5. Verify that washer lint traps, button traps, access doors and other parts of the equipment where solvent may be exposed to the atmosphere are closed at all times except as required for proper operation or maintenance.
- 6. Verify that wastes from the operation that are subject to the Department of Health Services regulation are stored, transported and disposed of in accordance with Department of Health Services regulations. Currently, Exxon DF-2000 solvent is not considered hazardous by local Health Departments.
- 7. Verify that the used filtering material is put into sealed containers immediately after removal from the filter. This is not required if one of the following is true:
  - a. Cartridge filters containing paper or carbon or a combination thereof are in use, which are fully drained in a sealed filter housing for at least 24 hours before being discarded (12 hours if the filter is dried in a dryer vented to an emission control device), OR
  - b. The petroleum solvent content in all filtration wastes is reduced to one (1.0) kilogram or less per 100 kilograms dry weight of articles dry-cleaned, before disposal and exposure to the atmosphere.
- 8. Verify that a clearly visible label that specifies the leak inspection and leak repair cycle information for petroleum solvent dryers is posted. The label should state:

"To protect against fire hazards, loss of valuable solvents, and emissions of solvents to the atmosphere, periodic inspection of this equipment for evidence of leaks and prompt repair of any leaks is recommended. The EPA recommends that the equipment be inspected every 15 days. Each owner or operator shall repair all petroleum solvent vapor and liquid leaks within three (3) working days after identifying the sources of the leaks. If necessary repair parts are not on hand the owner or

operator shall order these parts within three (3) working days, and repair the leaks no later than three (3) working days following the arrival of the necessary parts."

This label must be posted, however the leak check frequency is only a recommendation for the facility. The rule does not require that the leak checks be performed under this schedule, or that records be kept of such checks, or that discovered leaks be recorded.

- If the operation involves a transfer machine, verify that articles which have been cleaned are transferred to the dryer within five
  minutes after they are received from the washer, or are stored in closed transfer carts.
- 10. Verify that one of the following emission control requirements are installed:
  - Add-On Control device all exhaust gases from drying tumblers, washers, and cabinets are vented through a control device. OR
  - b. Solvent Recovery Dryer exhaust gases are recovered in a dryer that recovers at least 90 percent of the petroleum solvent by weight.
- 11. The rule requirement concerning the flow rate of recovered solvent not exceeding 0.05 liters per minute is not required to be monitored by the facility.

#### IV. RECORDKEEPING

#### A. Records Required

The owner/operator of a dry cleaning facility shall maintain the following records for a minimum of two (2) years.

- 1. Usage Records showing amounts of solvents purchased and used.
- 2. Solvent Filtration records showing the pre-washed weight of articles cleaned per load.
- **3.** Solvent Filtration Waste records showing the amount of volatile organic compounds contained in the filtration waste material per 100 kilograms dry weight of articles dry cleaned. **(Only needed if the material solvent reduction**

# method chosen in section 5.5 of the rule is by reducing solvent content to < 1 kg/100 kg clothes cleaned-section 5.5.2.)

#### **B.** Records Evaluation

A spot check of records should be conducted during the inspection in order to determine compliance with the record keeping requirements.

# C. Records Not Immediately Available

Follow the NTC Policy.

# D. Minor record Keeping errors and Omissions

Follow the NTC Policy.

# E. Records Not Kept

An NOV should be issued for failure to keep records.

#### V. POST-INSPECTION PROCEDURES

Follow the guidelines in the General Inspection Policy.