

RULE 67.2
DRY CLEANING EQUIPMENT USING PETROLEUM BASED SOLVENT
WORKSHOP REPORT

A workshop notice was mailed to each company known to be involved in Petroleum Dry Cleaning Operations in San Diego County. Notices were also mailed to all Economic Development Corporations and Chambers of Commerce in San Diego County, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and other interested parties. The workshop was held on February 28, 1991. The comments and District responses are as follows:

WORKSHOP COMMENT

Section (c) now includes a definition for "Exempt Compound". Why has this been added and are these compounds regulated under a different rule?

DISTRICT RESPONSE

This is consistent with other VOC rules in the District. These compounds are not ozone precursors. They are not regulated by the District and credit should not be taken from reductions of these compounds.

WORKSHOP COMMENT

How many dry cleaners are exempt from the rule?

DISTRICT RESPONSE

There will be no exempt petroleum-based solvent dry cleaners after the revised rule is adopted.

WORKSHOP COMMENT

In section (d)(4), petroleum-based organic solvent is defined as containing more than 10% VOC by volume. Is this making the rule more stringent?

DISTRICT RESPONSE

This rule was originally written when there were different terms in use. For consistency in the District's present VOC rules, this definition was revised to include a VOC content criterion. Practically it does not make the rule more or less stringent since all dry cleaners currently regulated by the rule use solvents that contain more than 10% VOC by volume.

WORKSHOP COMMENT

Subsection (d)(2) requires 80% by weight reduction; what does this mean?

DISTRICT RESPONSE

This is the efficiency of the emission control device, and refers to the percentage of pollutants being destructed or recovered by the device.

WORKSHOP COMMENT

What is the purpose of daily records of dry weight of fabric processed?

DISTRICT RESPONSE

EPA and ARB have required daily recordkeeping provisions be incorporated into all District VOC control rules. Since daily records of solvent usage will be extremely difficult for dry cleaning operations, the District has elected to satisfy EPA and ARB recordkeeping requirements by specifying, in Section (e), that records be kept of dry fabric processed. This will accomplish the same result. Daily solvent usage can then be estimated from the weight of fabric processed. The District believes that all affected dry cleaning facilities already maintain similar records for their own purposes.

EPA COMMENT

Subsection (c)(3) needs a provision to determine leaks.

DISTRICT RESPONSE

Subsection (c)(3) defines fugitive liquid leaks while Subsection (d)(1)(i) prohibits leaks. The District does not see the need to state that liquid leaks are to be determined by visual inspection of specified sources within a dry cleaning facility. Specifying the sources that are to be inspected for liquid leaks allows for loopholes in the rule. It is understood that a visual inspection is a comprehensive part of the District's inspection procedures.

EPA COMMENT

Subsection (d)(1)(i) should include the statement "Any leaking equipment shall not be operated."

DISTRICT RESPONSE

Subsection (d)(1)(i) reads: "A person shall not operate any dry cleaning facility unless there is no fugitive liquid leak from any portion of the dry cleaning facility." This statement is equivalent to the one suggested by the EPA since it prohibits operation of the whole facility, as defined in the rule, if leaks are present.

EPA COMMENT

Subsection (d)(1)(ii) should read: "Solvents shall be stored in closed containers, except where closed containers are prohibited by law, regulation, or fire control authority."

DISTRICT RESPONSE

Subsection (d)(1)(ii) is consistent with the language in other District rules. Subsection (d)(1)(ii) wording is equivalent to, if not more stringent than, the suggested wording.

EPA COMMENT

Subsection (d)(2) should require reduction of total emissions of hydrocarbon vapors by at least 90 % by weight instead of 80%.

DISTRICT RESPONSE

Subsection (d)(2) has been revised to require 90 % emissions reduction of hydrocarbon vapors.

EPA COMMENT

Section (d) - Standards should include a provision requiring cartridge filters to be drained and dried.

DISTRICT RESPONSE

Subsection (d)(v) has been added to the rule. This provision for draining cartridge filters is consistent with the requirements of District Rule 67.8 - Dry Cleaning Facilities Using Halogenated Organic Solvent.

EPA COMMENT

The rule should include a provision to require that leaks be repaired in a timely manner and that there be a label specifying leak inspection and repair information.

DISTRICT RESPONSE

Rule 67.2 prohibits leaks without a grace period for repairs. This requirement is more stringent than the suggested provision.

EPA COMMENT

Rule 67.2 should include a provision limiting the exposure time of cleaned articles prior to entering the dryer.

DISTRICT RESPONSE

This provision has been added to Section (d) of the rule.

ARB COMMENT

In Subsections (c)(2) and (c)(5), definitions are given for "exempt compounds" and "volatile organic compounds". Petroleum based solvents do not normally contain substantial amounts of exempt solvent and the term "volatile organic compounds" appears only in the definition of "petroleum based solvents". The definitions in these Subsections should be deleted and the term "petroleum based solvent" be redefined.

DISTRICT RESPONSE

The term "petroleum-based organic solvent " has been redefined. The definitions for "exempt compounds" and "volatile organic compounds" were added for consistency with other District VOC rules. The District does not believe that the inclusion of these terms affects the applicability or effectiveness of the rule in a detrimental manner.

ARB COMMENT

Section (b) exempts dry cleaning facilities that do not consume more than 2,000 gallons in a year. This exemption should be deleted.

DISTRICT RESPONSE

The exemption limit in Section (b) has been changed to 600 gallons in a year. Once the rule goes into effect, there will be no existing petroleum based solvent dry cleaning facilities in San Diego County which are exempt from this rule.

ARB COMMENT

Section (c) should include a definition for a fugitive gas leak measured to be greater than 10,000 ppm as methane using EPA Method 21.

DISTRICT RESPONSE

Subsection (d)(1)(iii) is intended to minimize fugitive vapor leaks. Generally, fugitive vapor leaks will be reflected in the emission reduction effectiveness of the solvent recovery dryers which are tested on a mass-balance basis.

ARB COMMENT

Subsection (d)(1)(ii) should be revised to require that both solvent and spent solvent be stored in closed containers. Also, a container equipped with a vent should keep the vent closed during normal operation.

DISTRICT RESPONSE

Subsection (d)(1)(ii) makes no distinction as to the state of the solvent; it is inclusive to both fresh and spent solvent. Keeping the vents in containers closed during normal operation may defeat the purpose of fire and safety code requirements.

ARB COMMENT

A requirement should be included for draining of cartridge filters for a 24-hour period before disposal.

DISTRICT RESPONSE

This requirement has been added to the rule.

ARB COMMENT

A requirement should be included to immediately transfer wet solvent laden materials to the dryer upon removal from the washers.

DISTRICT RESPONSE

A requirement has been added to transfer wet solvent materials to the dryer within 5 minutes or keep them covered. This is consistent with the EPA Control Technique Guideline.

ARB COMMENT

Solvent recovery dryers should be required of all replacement or new installations after the date of adoption.

DISTRICT RESPONSE

The rule has been amended to require 90 % emission control efficiency of all dry cleaning facilities consuming more than 600 gallons in a year. It is highly unlikely that a new facility would have an annual uncontrolled solvent use below that level.

ARB COMMENT

A requirement should be included to maintain dryers closed until the end of the drying cycle or until no solvent flow is detected.

DISTRICT RESPONSE

A requirement has been included to maintain dryers closed until no solvent flow is detected.

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Re Rules and Regulations of the)
Air Pollution Control District)
of San Diego County)

**RESOLUTION AMENDING RULE 67.2
OF REGULATION IV
OF THE RULES AND REGULATIONS OF THE
SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT**

On motion of Member _____, seconded by Member _____ the following resolution is adopted:

WHEREAS, the San Diego County Air Pollution Control Board, pursuant to Section 40702 of the Health and Safety Code, adopted Rules and Regulations of the Air Pollution Control District of San Diego County; and

WHEREAS, said Board now desires to amend said Rules and Regulations; and

WHEREAS, notice has been given and a public hearing has been had relating to the amendment of said Rules and Regulations pursuant to Section 40725 of the Health and Safety Code.

NOW THEREFORE IT IS RESOLVED AND ORDERED by the San Diego County Air Pollution Control Board that the Rules and Regulations of the Air Pollution Control District of San Diego County be and hereby are amended as follows:

Proposed amendments to Rule 67.2 are to read as follows:

RULE 67.2. DRY CLEANING EQUIPMENT USING PETROLEUM-BASED SOLVENT

(a) APPLICABILITY

(1) Except as otherwise provided in Section (b), this rule is applicable to any dry cleaning facility which uses petroleum-based organic solvent.

(2) Operations subject to this rule and in compliance with Section (d) of this rule shall not be subject to Rule 66.

(b) EXEMPTIONS

The provisions of Subsection (d)(2) of this rule shall not apply to any dry cleaning facility which does not consume more than 2,000 600 gallons of petroleum-based organic solvent per year in any consecutive twelve-month period. It is the responsibility of any person claiming this exemption to maintain monthly records of usage of petroleum-based organic solvents. These

records shall be retained on site for at least three years and shall be made available to the District upon request.

(c) **DEFINITIONS**

(1) **"Dry Cleaning Facility"** means a stationary source where one or more pieces of equipment are used in the cleaning of fabrics or leather in petroleum-based organic solvents. The facility includes but is not limited to washers, extractors, dryers, filter and purification systems, waste disposal systems, holding tanks, pumps, and associated valves, fittings and piping in which petroleum-based organic solvent is employed, stored, evaporated, transported or processed.

~~(2) **"Fugitive Liquid Leak"** means a leak of petroleum-based organic solvent at a rate in excess of three drops per minute.~~

~~(2) **"Exempt Compound"** is any of the following compounds: methylene chloride, 1,1,1-trichloroethane, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (FC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), dichlorotrifluoroethane (HCFC-123), tetrafluoroethane (HFC-134a), dichlorofluoroethane (HCFC-141b), and chlorodifluoroethane (HCFC-142b).~~

~~(3) **"Fugitive Liquid Leak"** is defined as:~~

~~(i) A leak of petroleum-based organic solvent at a rate in excess of three drops per minute; or~~

~~(ii) A visible mist of petroleum-based organic solvent.~~

~~(3)(4) **"Petroleum-Based Organic Solvent"** means a solvent containing more than 10 percent non-halogenated VOC by volume, non-halogenated organic compound as defined in Rule 20.1.~~

~~(4) **"Stationary Source"** means the same as defined in Rule 20.1.~~

~~(5) **"Volatile Organic Compound" (VOC)** means any volatile compound of carbon except methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds which may be emitted to the atmosphere during dry cleaning operations subject to this rule.~~

(d) **STANDARDS**

(1) A person shall not operate any dry cleaning facility unless:

(i) There is no fugitive liquid leak from any portion of the dry cleaning facility.

(ii) Solvents are stored in closed containers only, which may be equipped with vents approved by the Air Pollution Control Officer provided such vents are necessary to comply with applicable fire and safety codes.

(iii) All washer lint traps, button traps, access doors and other parts of the equipment where solvent may be exposed to the atmosphere are kept closed at all times except when required for proper operation or maintenance.

(iv) All wastes containing petroleum-based organic solvents, including cartridge filters, are stored in sealed metal containers or underground tanks and disposed of in accordance with State hazardous waste disposal regulations or in a manner approved by the Air Pollution Control Officer as set forth in California State Law regarding hazardous waste disposal as described in Title 22, Division 4, Chapter 30 of the California Administrative Code. Sealed containers other than metal may be used provided the containers are compatible with the waste and meet the requirements of the California Department of Health Services.

(v) All cartridge type filters are drained in the filter housing for at least 24 hours before discarding the cartridges or drained for at least 12 hours and dried in a closed dryer.

(vi) Articles which have been dry cleaned are transferred to the dryer within five minutes after they are removed from the washer, or are kept covered.

(vii) The dryer remains closed and the recovery phase continues until there is no visible flow in the sight glass of the condenser for at least one minute.

(2) A person shall not operate a dry cleaning facility unless the total emissions of petroleum-based organic solvent to the atmosphere from all drying tumblers and drying cabinets, over each operating day, are reduced by at least ~~80~~ 90 percent by weight.

(3) A person shall not install and operate a new or replacement solvent filter and purification system unless the system employs cartridge filters containing paper or carbon or a combination thereof and the system does not include a diatomaceous earth filtering system.

(e) RECORDKEEPING

Any person operating a dry cleaning facility using petroleum-based solvents shall maintain purchase records showing the date and amount of petroleum-based solvents purchased, and shall maintain daily records of the total dry weight of fabric processed. These records shall be retained on site for at least three years and made available to the District upon request.

(f) TEST METHODS

(1) Measurements of petroleum-based VOC emissions pursuant to Subsection (d)(2) shall be conducted in accordance with EPA Test Method 25 (40 CFR 60, Appendix A) as it exists on (date of adoption).

(2) Measurements of VOC content pursuant to this rule shall be conducted and reported in accordance with ASTM Standard Recommended Practices for General Gas Chromatography Procedures, E 260-85.

(g) COMPLIANCE SCHEDULE

Any person operating a dry cleaning facility using more than 600 gallons of petroleum-based organic solvent in any consecutive twelve-month period that does not comply with the requirements of Subsection (d)(2) shall conform to the following increments of progress:

(1) By November 1, 1991, submit to the Air Pollution Control Officer application for Authority to Construct and Permit to Operate an air pollution control system with the efficiency specified in Subsection (d)(2).

(2) By February 1, 1992, issue purchase orders for the basic VOC control device and other long delivery time components necessary to comply with Subsection (d)(2).

(3) By May 31, 1992, be in compliance with Subsection (d)(2).

IT IS FURTHER RESOLVED AND ORDERED that the subject amendments to Rule 67.2, of Regulation IV, shall take effect upon adoption.

PASSED AND ADOPTED by the Air Pollution Control Board of the San Diego County Air Pollution Control District, State of California, this _____ day of _____, 1991 by the following votes:

AYES:
NOES:
ABSENT: