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**Issue:** Regulatory Status of MiraChem Cleaners with respect to the Bay Area Air Quality Management District (BAAQMD) Rule 16 for Solvent Cleaning Operations as of September 1, 2000.

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The purpose of this Rule is to limit emissions from solvent cleaning operations, i.e. any process, including wipe cleaning, used to clean or dry metal and non-metal surfaces typically using a cold process, vapor process or conveyORIZED (pass-through) solvent cleaner process. Unlike regulations from other districts, this Rule focuses on the equipment design rather than the solvent VOC content.

Cold cleaning is defined as non-boiling solutions. This includes, but is not limited to spray sinks, spray booths, spray gun washers and batch-loaded dip tanks. MiraChem 500, 750 and Pressroom Cleaners nearly always will fall under the requirements for Cold Cleaners, Section 303.

Effective September 1, 1999, Section 303.5 was implemented. This section requires that "the VOC content of the cleaning solution used in a cold cleaner shall not exceed 50 g/l (0.42 lb/gal). Cold cleaners meeting the requirements of this section are not required to comply with subsection 303.4". At the MiraChem recommended use dilutions, the MiraChem "Clean Air Solvents" meet the requirement of 303.5.

<u>Product</u>	<u>Dilution</u>	<u>VOC g/l</u>	<u>VOC lb/gal</u>
MiraChem 250 Rust & Scale Remover	Undiluted	0	0
MiraChem 500 Cleaner/Degreaser	Use dilution of 1:1	40	0.34
MiraChem 750 Low Foam	Use dilution of 2:1	25	0.21
MiraChem Pressroom Cleaner	Use dilution of 1:1	35	0.29
MiraChem 500 Commercial PW Fluid <sup>a</sup>	Undiluted	27	0.21
MiraChem 750 Commercial PW Fluid <sup>b</sup>	Undiluted	25	0.21

<sup>a</sup> Dilution of MiraChem 500

<sup>b</sup> Dilution of MiraChem 750

By meeting the requirements 303.5, the technical and cumbersome requirements of the rule have been removed. These include items such as:

- 303.4.1 A freeboard ratio greater than or equal to 0.75 where the maximum solvent reservoir capacity is clearly marked by a suitable mechanical or physical means.
- 303.4.2 A water cover, provided the solvent is insoluble in and heavier than water.
- 303.4.3 A free board chiller where the chiller air blanket temperature measured in °F at the coldest point on the vertical axis in the center of the solvent cleaner shall be no greater than 30 percent of the initial boiling point of the solvent used or 40°F.
- 303.4.4 An approved emission control device which has a control efficiency of 90 percent or more on a mass basis or meets an emissions limit of less than or equal to 10 lb/day.
- 303.4.5 An enclosed design in which the cover or door opens only when the dry part is entering or exiting the cold cleaner unless the cleaner is an airtight solvent cleaner.

With the implementation of 303.5, the customer is still required to adhere to 303.1 through 303.3 and the administrative requirements for record keeping although only on an annual basis with no requirements for measurements of VOC emissions from individual machines. For more information see the attached regulation summary.

Various exemptions are listed under sections 110 through 122. Exemptions of note include;

- 1) Small, unheated equipment using one gallon or less of solvent and a 1 sq. ft. surface area.
- 2) Operations utilizing low volatility solvents (mineral spirits); these must be in pass-through systems or meet the requirements of 303.4 (see below) and 501.
- 3) Operations with a single Cold Cleaner (partwasher) per facility that uses a solvent that meets the requirements of 303.5 (see above) provided the annual solvent loss does not exceed 20 gallons.
- 4) Permitted Cold Cleaners using solvents meeting 303.5 for which a District permit to operate has been obtained pursuant to Regulation 2, Rule 1.

Sections of Bay Area Air Quality Management District Regulation 8, Rule 16 that apply to the use of MiraChem Cleaners as Cold Solvent Cleaners:

- 303 **Cold Cleaner Requirements:** Any person who operates a cold solvent cleaning device shall conform to the following requirements.
- 303.1 General Operating Requirements
- 1.1 The solvent cleaning equipment and emission control shall be operated and maintained in proper working order.
  - 1.2 Liquid solvent leaks shall be repaired immediately or the equipment shall be shut down.
  - 1.3 Solvent, including waste solvent, shall not be stored or disposed of in a manner that will cause or allow evaporation into the atmosphere.
  - 1.4 Waste solvent residues shall be disposed of by one of the following methods:
    - a. Where residues are treated prior to further offsite treatment such residues shall be stored in covered containers to minimize evaporation prior to service pick-up.
    - b. Where residues are treated prior to final disposal at a appropriate waste disposal facility, such residues shall not contain more than 10 percent solvent by volume and shall be stored in covered containers.
  - 1.5 Devices designed to reduce solvent evaporation shall not be removed except to process work or to perform maintenance. Where a compound with low volatility is being used, enclosed (remote) reservoirs are deemed equivalent equipment to closed covers.
  - 1.6 If a solvent flow is utilized, only a continuous fluid stream shall be used (into a fine, atomized, or shower type spray), unless an approved emission control device is used with a control efficiency of 90 percent or more on a mass basis, or unless the solvent spray is totally enclosed during the washing, rinsing and drying process.
- 303.2 Cold Cleaner Operating Requirements
- 2.1 Cleaned parts shall be drained until dripping ceases.
  - 2.2 Solvent agitation shall be accomplished only by pump recirculation or by means of a mixer. Air agitation shall not be used.
  - 2.3 The solvent cleaning of porous or absorbent materials in cold cleaners is prohibited.
- 303.3 Cold Cleaner General Equipment Requirements shall include all of the following:
- 3.1 A container for the solvent and the articles being cleaned.
  - 3.2 An apparatus, cover, or enclosed (remote) reservoir which reduces solvent evaporation when not processing work in the solvent cleaner. If a compound with low volatility is not being used or the solvent is agitated or heated, the cover must be designed so that it can be operated with one hand.
  - 3.3 A method for draining cleaned parts, so that drained solvent is returned to the container. If a compound with low volatility is not being used, then the drainage facility must be internal so that the parts are enclosed while draining. The drainage facility may be external where the internal type cannot fit into the cleaning system.
  - 3.4 A permanent, conspicuous label summarizing the applicable operating requirements contained in subsection 303.1.

**Solvent Records:** Any person subject to the requirements of this Rule shall keep the following records:

- 501.2 On a facility-wide, annual basis, records showing the type and total amount of make-up solvent used in all solvent cleaning operations subject to this rule regardless of the number of cleaning operations involved.
- 501.3 On an annual basis, records showing the type and amount of solvent subject to Section 8-16-11 (amount used for wipe cleaning)
- 501.4 Does not apply.
- 501.5 Records shall be retained and available for inspection by the APCO for the previous 24-month period.
- 501.6 Information, such as purchase order or hazardous waste manifests, that will allow the APCO to verify compliance with the solvent loss limitation in Section 8-16-121 (Single unit exemption)