

RULE 427. CHROMATE TREATED COOLING TOWERS

Adopted: 12/12/90

A. PURPOSE

To comply with the Air Resources Board's Hexavalent Chromium Airborne Toxic Control Measure for Chromate Treated Cooling Towers, as required by California Health and Safety Code Section 39666.

B. DEFINITIONS

For the purposes of this rule, the following definitions shall apply:

1. "Chromium": Hexavalent chromium.
2. "Cooling tower": A device which evaporates circulating water to remove heat from a process, building, or refrigerator and transfers the heat to the ambient air.
3. "Water treatment chemicals": Any combination of chemicals which are added to cooling tower water including, but not limited to, corrosion inhibitors, antiscalants, tracers, dispersants and biocides.
4. "Wooden cooling tower": A cooling tower containing wood components which are exposed to the circulating water.

C. REQUIREMENTS

The requirements of this rule shall apply to any cooling tower in which the circulating water is exposed to the ambient air. A person shall not operate any cooling tower unless the following requirements are met:

1. No chromium containing compounds shall be added to the cooling tower circulating water;
2. The concentration of chromium in the cooling tower circulating water shall not exceed:
 - a. 0.15 milligrams per liter (mg/l) in any non-wooden cooling tower, effective June 12, 1991;
 - b. 8.0 mg/l, effective June 12, 1991, and 0.15 mg/l, effective December 12, 1991, in any wooden cooling tower. Between June 12, 1991 and December 12, 1991, the measured concentrations must decrease each month.
3. Compliance shall be determined by testing the concentration of chromium in the circulating water every six months in non-wooden cooling towers and monthly in wooden cooling towers. Testing may be discontinued if two required consecutive tests show chromium concentrations less than 0.15 mg/l. The Air Pollution Control District (APCD) may require testing of

the circulating water at any time, to confirm that the water does not contain chromium in excess of 0.15 mg/l;

4. A compliance plan, as defined in Section D, shall be submitted to the APCD by March 12, 1991 or 90 days prior to placing a new cooling tower in operation.

D. COMPLIANCE PLAN

Owners or operators of cooling towers located at separate stationary sources shall submit a separate compliance plan for each stationary source. A compliance plan shall be accompanied by the fee specified and shall contain the following:

1. The name, address, and phone number of the cooling tower operator and owner;
2. The cooling tower location including the address and the site specific location;
3. The cooling tower specifications including type of construction and materials of construction.
4. The trade and chemical names of the water treatment additives currently in use, the Material Safety Data Sheets for these additives, and the name and address of the manufacturer and supplier;
5. The date when the addition of chromium containing compounds to the circulating water ceased, or will cease.

E. EXEMPTIONS

1. If chromium containing compounds have not been added to the circulating water in a cooling tower since June 12, 1990, or have never been added, the APCD may waive the requirements of subsections C.3 and C.4. A person seeking an exemption pursuant to this subsection shall submit to the APCD written certification, signed by a company officer, stating that chromium containing compounds have not been added to the cooling tower circulating water since June 12, 1990, or have never been added. In addition, the written certification shall contain the information specified in subsections D.1, D.2, and D.4. The APCD may require the testing of the circulating water at any time, to confirm that the circulating water does not contain chromium in excess of 0.15 mg/l.
2. Any cooling tower in which the circulating water is completely contained and is not exposed to the ambient air is exempt from the provisions of this rule.

F. RECORDKEEPING REQUIREMENTS

Any person subject to the requirements of subsection C.3 shall maintain records of all circulating water tests performed pursuant to subsection C.3. The records shall be retained for at least two years and shall be made available to the APCD upon request.

G. REPORTING REQUIREMENTS

By January 12, 1992 and annually thereafter, any person subject to the requirements of subsection C.3 shall submit to the APCD the results of all circulating water tests performed pursuant to subsection C.3. In addition, the submitted test results shall include the date the test was performed, and the name and address of the laboratory performing the test.

H. TEST METHODS

Compliance with the chromium concentration limits in sub section C.2, shall be determined by American Public Health Association Method 312B.

I. COMPLIANCE SCHEDULE

Any person subject to the provisions of Section C shall meet the following compliance schedule:

1. Achieve compliance with the requirements of subsection C.1 by April 12, 1991;
2. Begin testing pursuant to the requirements of subsection C.3, by July 12, 1991.

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