

RULE 1003 HEXAVALENT CHROMIUM EMISSIONS FROM COOLING TOWERS  
(Adopted 8/30/94; revised 9/14/99,5/18/2004)

- A. Reserved
- B. Requirements

A person shall not operate a cooling tower unless the following requirements are met:

- B.1 Within ninety (90) days of the effective date of this regulation, any person who owns, operates or who plans to build, a cooling tower must submit to the Air Pollution Control Officer a compliance plan which meets the requirements of Section D. of this rule.
  - B.2 No later than 180 days after the effective date of this regulation, hexavalent chromium-containing water treatment compounds shall not be added to the cooling tower circulating water.
  - B.3 No later than 180 days after the effective date of this regulation, the concentration of hexavalent chromium in the circulating water of a non-wooden cooling tower shall not exceed 0.15 milligrams per liter (mg/L) and the circulation water shall be tested to determine the concentration of hexavalent chromium every six months.
  - B.4 Owners and operators of wooden cooling towers, notwithstanding other provisions of this rule, shall test the circulating water to determine the concentration of hexavalent chromium monthly. Monthly tests should show a decreasing concentration of hexavalent chromium in the water.
    - B.4.a No later than six months after the adoption of this rule, the concentration of hexavalent chromium in wooden cooling tower circulating water shall not exceed 8 mg/L.
    - B.4.b No later than 180 days after the adoption of this rule, the concentration of hexavalent chromium in wooden cooling tower circulating water shall not exceed 0.15 mg/L.
- C. Method of Analysis
- The hexavalent chromium concentration in the cooling tower water shall be measured by:
- C.1 Stabilizing the collected sample with low metal sodium carbonate to a pH range of 7 to 9; and

C.2 Analyzing the sample using American Public Health Method 312B.

D. Compliance Plan

A written compliance plan shall contain the following:

- D.1 Name, address, and phone number of the owner and operator;
- D.2 Cooling tower location including the address and specific location of each cooling tower;
- D.3 The materials used in the cooling tower construction;
- D.4 The trade and chemical names of the water treatment additives proposed to be used or currently in use, and the name and address of the manufacturer and supplier;
- D.5 Date when hexavalent chromium-containing water treatment chemicals were last added; and
- D.6 Hexavalent chromium concentration test results including the date of the test, and the name and address of the laboratory performing the test, unless exempt under subsection F.2.

E. Recordkeeping

Records shall be retained for two years and made available upon request to the Air Pollution Control Officer. Records shall contain, but are not limited to, the information as required by Section D. of this rule. The operator shall maintain records regarding all cooling towers in one location.

F. Exemptions

The Air Pollution Control Officer may, upon the written request of the owner or operator, grant an exemption from the periodic water testing requirements if:

- F.1 Two consecutive required water tests, as specified in subsection B.4., show the concentration of hexavalent chromium is less than 0.15 mg/L of the circulating water; or
- F.2 Hexavalent chromium-containing water treatment chemicals have not been used for at least one year prior to the adoption date of this rule.