

RULE 335. CONTROL OF HEXAVALENT CHROMIUM IN COOLING TOWERS. (Adopted 1/9/1990)

A. Applicability

This Rule is applicable to all cooling towers where circulating water is exposed to the atmosphere.

B. Definitions

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

1. **"Chromium"** means hexavalent chromium.
2. **"Cooling tower"** means a device which evaporates circulating water to remove heat from a process, building or refrigerator and puts heat into the ambient air.

C. Requirements - General

1. No person shall sell, offer for sale or specify the use of hexavalent chromium for cooling towers with circulating water exposed to the atmosphere after July 1, 1990.
2. No person shall add any hexavalent chromium containing compounds to the circulating water of any cooling tower after July 1, 1990.
3. No person shall operate any cooling tower if the circulating water contains a concentration of hexavalent chromium equal to or greater than 0.15 milligrams per liter after July 1, 1990 except as provided in Section C.4.
4. Cooling towers containing wooden components, exposed to the circulating water, will be allowed to exceed the limit of 0.15 milligrams per liter until January 1, 1991. Any owner or operator of any such cooling tower shall:
 - a. Assure that the concentration of hexavalent chromium in the circulating water does not exceed a concentration of 8 milligrams per liter.
 - b. Test the circulating water to determine the hexavalent chromium concentration during the last week of each month from July 1, 1990 to January 1, 1991.
 - c. Assure that the concentration of hexavalent chromium in the circulating water shows a continuing decrease each month.
 - d. Submit copies of the monthly test reports to the District no later than the 21st calendar day of the following month.

D. Requirements - Testing

1. The owner or operator shall test the cooling water in every tower:
 - a. During the last week of June, 1990 for the concentration of hexavalent chromium in milligrams per liter.
 - b. Semiannually after July 1, 1990 for the concentration of hexavalent chromium in milligrams per liter.
2. If, after July 1, 1990, two consecutive semiannual tests show concentrations of hexavalent chromium less than 0.15 milligrams per liter of circulating water, then testing as specified under

Section D.1.b will no longer be required. The District may require that testing be resumed at any time if the District has reason to believe that the circulating water contains hexavalent chromium in concentrations greater than 0.15 milligrams per liter.

E. Test Method

1. Tests required under Section D will be conducted using the American Public Health Association Method 312B. (See "Standard Methods for Examination of Water and Wastewater," Sixteenth Edition, published by the American Public Health Association).
2. All test samples will be taken when the cooling water has been circulating for at least two hours.
3. All test samples will be taken no less than two hours after the addition of make-up water has ceased.

F. Recordkeeping

The results of all testing accomplished shall be maintained on site for a minimum of three years and be shall be made available to the District on request.

G. Reporting

1. The results of testing accomplished under Section D.1.a will be submitted to the District not later than July 21, 1990.
2. The results of testing accomplished under Section D.1.b will be submitted to the District annually, not later than 60 days after the start of each calendar year.
3. If testing will be suspended under Section D.2, the last annual report shall contain a statement to that effect.

H. Exemptions

1. If hexavalent chromium has not been used in a cooling tower since July 1, 1989, or if hexavalent chromium has never been used in a cooling tower, and this can be demonstrated to the District, the District may waive the requirements of Section D. Such demonstration may be made by written certification signed by a company officer, that hexavalent chromium compounds have not been used within the year immediately before the compliance date. The District may, however, require testing of the circulating water at any time, if the District has reason to believe that the circulating water contains hexavalent chromium.

I. Compliance Schedule

1. The owner or operator of any cooling tower constructed after January 9, 1990 shall comply with Section C.3 when first operated.
2. The owner or operator of any cooling tower using hexavalent chromium or which used hexavalent chromium after July 1, 1989, constructed or under construction on January 9, 1990, shall submit a compliance plan to the District by April 1, 1990 delineating actions to be taken to attain compliance. This plan shall include the following information and shall be accompanied by the fee specified in Rule 210.
 - a. Company name and mailing address

- b. Location of tower
 - (1) Address
 - (2) Plot Plan
 - c. Specifications of tower
 - (1) Dimensions
 - (2) Type of construction
 - (3) Water flow rate
 - d. Specifications of the water treatment processes presently in use in the tower.
 - e. State when the use of hexavalent chromium ceased or will cease.
 - f. Specification of what treatment process will replace hexavalent chromium in the cooling tower.
 - g. If tower has wooden components, whether demonstration of compliance will be under the compliance date in Section C.4.
3. The owner or operator of any cooling tower which has not used hexavalent chromium in the circulating water since July 1, 1989 shall apply to the District for exemption from testing in accordance with the provisions of Section H.1.