

ILLINOIS POLLUTION CONTROL BOARD

#R70-5: MERCURY REGULATIONS

(As Adopted, March 31, 1971)

PREAMBLE

Mercury is a toxic substance which has only been recognized as an environmental hazard in the United States since March of 1970. Mercury poisoning can cause death or severe damage to the nervous system or to the kidneys. It is cumulative in the body and a portion of ingested mercury seeks the brain.

No standard specifically relating to mercury presently exists. It is the objective of the Pollution Control Board that no emissions increase the background level of the receiving waters. The proposed standard is set at what appears to be the background level of mercury in Lake Michigan and at 10% of the U.S. Public Health Service tentative standard for mercury in drinking water.

Special provision has been made for certain small discharges to the sewers.

1. Water Quality Standard. Existing Board Regulations specifying water quality standards for all the waters of Illinois (SWB-7 through SWB-15) are hereby amended to provide that the concentration of mercury and/or any of its compounds shall not exceed 0.0005 mg/l as Hg. at any time, in any sector of any stream or lake, or in groundwater. Mercury is hereby designated as a heavy metal, and existing standards applicable to total quantities of heavy metals shall include mercury and its compounds.
2. Effluent Standard. (a) Except as provided in subparagraphs (b) and (c) of this paragraph, no effluent to the waters of Illinois or to a public sewer system shall include

mercury or any of its compounds in excess of 0.0005 mg/l as Hg. at any time, unless it can be shown that the mercury concentration of the effluent is no greater than that of the water used as a source of supply. Dilution of effluents shall not be an acceptable alternative to treatment. Where water is added to a stream of waste water and cannot reasonably be physically separated, then its quantity shall be measured and effluent concentrations recomputed to exclude its diluting effect.

(b) Prior to June 1, 1974 the discharge of mercury shall be exempt from the limitations of subparagraph (a) of this paragraph if it meets all the following conditions:

(i) The total plant discharge totals less than five pounds as Hg in any year.

(ii) The discharge is to a public sewer served by a sewage treatment facility handling no less than 25,000 population equivalents;

(iii) The discharge does not alone, or in conjunction with other sources, cause the effluent from the sewage treatment plant to exceed the limitations of subparagraph (a) of this paragraph; and

(iv) At least 95% of the mercury that would be discharged in the absence of control is removed from the effluent by December 1, 1971.

(v) From and after June 1, 1974 the exemptions provided in this subsection (b) shall terminate.

(c) The discharge of wastes from medicinal or therapeutic use of mercury, exclusive of laboratory use, shall be exempt from the limitations of subparagraphs (a) and (b) of this paragraph if all the following conditions are met:

(i) The total plant discharge is less than one half pound as Hg in any year;

- (ii) The discharge is to a public sewer system;  
and
  - (iii) The discharge does not, alone or in conjunction with other sources, cause the effluent from the sewer system or treatment plant to exceed the limitations of subparagraph (a) of this paragraph.
  - (d) No discharge of mercury shall be permitted which, alone or in combination with other sources, causes a violation of the water quality standard in paragraph 1 of this regulation.
3. Solid Wastes. All sludge and residue containing mercury or any of its compounds shall be reclaimed and recycled whenever reasonably feasible, and in other cases shall be disposed of so as to minimize to the greatest feasible extent all hazards of air or water pollution or other environmental contamination.
4. Reporting. Every person within this State who utilizes mercury or any of its compounds in excess of 15 pounds per year as Hg, or who discharges mercury or its compounds into waters of the State or into any sewer system, shall file with the Environmental Protection Agency, on or before June 1, 1971, and annually thereafter, a report setting forth the nature of the enterprise; a list, by type and by quantity, of mercury products and mercury derivatives produced, used in, and incidental to its processes, including by-products and waste products; the estimated concentrations and annual total number of pounds of mercury that will be discharged into the waters of the State or to any sewer system; and what measures are taken or proposed to be taken to reduce or to eliminate such discharges.
5. Testing. All testing pursuant to the regulations herein provided shall be by means of the Tentative Method for Mercury (Flameless Atomic Absorption Procedure) as issued by the Analytical Quality Control Laboratory of the Federal Water Quality Administration on September, 1970 or by the neutron activation method.
6. Effective date. Except as specifically provided in Sections 4 and 2(b) and 2(c) (iv) of these regulations, the requirements of these regulations shall be met within ten days after filing with the Secretary of State.