ILLINOIS POLLUTION CONTROL BOARD

#R 70-2, THERMAL STANDARDS, LAKE MICHIGAN
June 9, 1971

Rules and Regulations SWB-7 and SWB-15 are hereby amended by adding the following new provisions applicable to Lake Michigan and Calumet Harbor:

1. (a) All sources of heated effluents in existence as of January 1, 1971 shall meet the following restrictions outside of a mixing zone which shall be no greater than a circle with a radius of 1000 feet or an equal fixed area of simple form:

(i) There snall be no abnormal temperature changes that may affect aquatic life.

(ii) The normal daily and seasonal temperature fluctuations that existed before the addition of heat shall be maintained.

(iii) The maximum temperature rise at any time above natural temperatures shall not exceed 3° F. In addition, the water temperature shall not exceed the maximum limits (° F.) indicated in the following table:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
45	45	45	55	60	70	80	80	80	65	60	50

(b) The owner or operator of a source of heated effluent which discharges 0.5 billion British Thermal Units per hour (BTU/HR.) or more shall demonstrate in a hearing before this Board not less than 5 nor more than six years after the adoption of this regulation, that discharges from that source have not caused and cannot be reasonably expected in the future to cause significant ecological damage to the Lake. If such proof is not made to the satisfaction of the Board, backfitting of alternative cooling devices shall be accomplished within a reasonable time as determined by the Board.

(c) The owner or operator of a source of heated effluent shall maintain such records and conduct such studies of the effluents from such source and of their effects as may be required by the Environmental Protection Agency or in any permit granted under the Environmental Protection Act.

(d) Backfitting of alternative cooling facilities will be required if, upon complaint filed in accordance with Board rules, it is found at any time that any heated effluent causes significant ecological damage to the Lake.

2. Any effluent source under construction as of January 1, 1971, but not in operation, shall meet all the requirements of Section 1 of this regulation and in addition shall meet the following restrictions:

   (a) Neither the bottom, the shore, the hypolimnion, nor the thermocline shall be affected by any heated effluent.

   (b) No heated effluent shall affect spawning grounds or fish migration routes.

   (c) Discharge structures shall be so designed as to maximize short-term mixing and thus to reduce the area significantly raised in temperature.

   (d) No discharge shall exceed ambient temperatures by more than 20° F.

   (e) Heated effluents from more than one source shall not interact.

   (f) All reasonable steps shall be taken to reduce the number of organisms drawn into or against the intakes.

   (g) Cleaning of condensers shall be accomplished by mechanical devices. If chemicals must be used to supplement mechanical devices, the concentration at the point of discharge shall not exceed the 96-hour TLm for fresh water organisms.

3. (a) No source of heated effluent which was not in operation or under construction as of January 1, 1971 shall discharge more than a daily average of 0.1 billion BTU/Hr.

   (b) Sources of heated effluents which discharge less than a daily average of 0.1 billion BTU/Hr. not in operation or under construction as of January 1, 1971 shall meet all requirements of sections 1 and 2 of this regulation.