

ILLINOIS POLLUTION CONTROL BOARD
January 4, 1979

IN THE MATTER OF:)
AMENDMENTS TO THE) R76-1
WATER POLLUTION REGULATIONS)

PROPOSED ORDER OF THE BOARD (by Mr. Dumelle):

The following amendments to Chapter 3: Water Pollution of the Board's Rules and Regulations are hereby authorized for publication and proposed for adoption. Comment on these proposals shall be received for 45 days from the date of this Order. Those portions of each rule proposed to be deleted are lined out. New language is underlined.

203 General Standards

The General Standards listed below will protect the State's water for aquatic life, agricultural use, primary and secondary contact use, and most industrial uses, and ensure the aesthetic quality of the State's aquatic environment. Except as otherwise provided in this Chapter, all waters of the State shall meet the following standards:

- (a) Freedom from unnatural sludge or bottom deposits, floating debris, visible oil, odor, unnatural plant or algal growth, unnatural color or turbidity, or matter in concentrations or combinations toxic or harmful to human, animal, plant or aquatic life of other than natural origin.
- (b) pH (STORET number - 00400) shall be within the range of 6.5 to 9.0 except for natural causes.
- (c) Phosphorus (STORET number - 00665): After December 31, 1983 phosphorus as P shall not exceed 0.05 mg/l in any reservoir or lake with a surface area of 20 acres or more, or in any stream at the point where it enters any such reservoir or lake. For the purposes of this Rule 203(c) the term "reservoir or lake" shall not include low level pools constructed in free flowing streams or any body of water which is an integral part of an operation which includes the application of sludge on land. Point source discharges which comply with Rule 407 of this Chapter shall be in compliance with this Rule 203(c).
- (d) Dissolved oxygen (STORET number - 00300) shall not be less than 6.0 mg/l during at least 16 hours of any 24 hour period, nor less than 5.0 mg/l at any time.
- (e) Radioactivity:
 - (1) Gross beta (STORET number - 03501) concentration shall not exceed 100 pico curies per liter (pCi/l).
 - (2) Concentrations of radium 226 (STORET number - 09501) and strontium 90 (STORET number - 13501)

shall not exceed 1 and 2 pico curies per liter respectively.

(f) The following levels of chemical constituents shall not be exceeded:

| CONSTITUENT | STORET NUMBER | CONCENTRATION (mg/l) |
|-----------------------------|-------------------------------|----------------------|
| Ammonia Nitrogen (as N) | 00610 | 1.5 |
| Arsenic (total) | 01000 <u>01002</u> | 1.0 |
| Barium (total) | 01005 <u>01007</u> | 5.0 |
| Boron (total) | 01020 <u>01022</u> | 1.0 |
| Cadmium (total) | 01025 <u>01027</u> | 0.05 |
| Chloride | 00940 | 500. |
| Chromium (total hexavalent) | 01032 | 0.05 |
| Chromium (total trivalent) | 01033 | 1.0 |
| Copper (total) | 01040 <u>01042</u> | 0.02 |
| Cyanide | 00720 | 0.025 |
| Fluoride | 00950 <u>00951</u> | 1.4 |
| Iron (total) | 01045 | 1.0 |
| Lead (total) | 01049 <u>01051</u> | 0.1 |
| Manganese (total) | 01055 | 1.0 |
| Mercury (total) | 71900 | 0.0005 |
| Nickel (total) | 01065 <u>01067</u> | 1.0 |
| Phenols | 32730 | 0.1 |
| Selenium (total) | 01145 <u>01147</u> | 1.0 |
| Silver (total) | 01075 <u>01077</u> | 0.005 |
| Sulfate | 00945 | 500. |
| Total Dissolved Solids | 00515 <u>70300</u> | 1000. |
| Zinc | 01090 <u>01092</u> | 1.0 |

- (g) Based on a minimum of five samples taken over not more than a 30-day period, fecal coliforms (STORET number - 31616) shall not exceed a geometric mean of 200 per 100 ml. nor shall more than 10% of the samples during any 30-day period, exceed 400 per 100 ml.
- (h) Any substance toxic to aquatic life shall not exceed 1/10th of the 96-hour median tolerance limit (96-hr. TL_m) for native fish or essential fish food organisms except for U.S.E.P.A. registered pesticides approved for aquatic application and applied pursuant to the following conditions:
 - (i) Application shall be made in strict accordance with label directions;
 - (ii) Applicator shall be properly certified under the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. 135 et seq. (1972);
 - (iii) Applications of aquatic pesticides must be in accordance with the laws, regulations and guidelines of all state and federal agencies authorized by law to regulate, use, or supervise pesticide applications, among which are included the Illinois Department of Conservation pursuant to Ill. Rev. Stat. Ch. 56 §§ 1.1-250 (1976); the Illinois Department of Agriculture and the Illinois Department of Public Health pursuant to Ill. Rev. Stat. Ch. 5 §§ 256-267 (1976); and the Illinois Natural History Survey pursuant to Ill. Rev. Stat. Ch. 127 §§ 58.14 (1976).
 - (iv) No aquatic pesticide shall be applied to waters affecting public or food processing water supplies unless a permit to apply the pesticide has been obtained from the Illinois Environmental Protection Agency. All permits shall be issued so as not to cause a violation of the Act or of any of the Board's rules or regulations. To aid applicators in determining their responsibilities under this subsection, a list of waters affecting public water supplies will be published and maintained by the Agency's Division of Public

Water Supplies.

- (i) Temperature [STORET number (F°) 00011 and (C°) 00010]:
- (1) There shall be no abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.
 - (2) The normal daily and seasonal temperature fluctuations that existed before the addition of heat due to other than natural causes shall be maintained.
 - (3) The maximum temperature rise above natural temperatures shall not exceed 5°F.
 - (4) In addition, the water temperature at representative locations in the main river shall not exceed the maximum limits in the following table during more than one percent of the hours in the 12-month period ending with any month. Moreover, at no time shall the water temperature at such locations exceed the maximum limits in the following table by more than 3°F ~~(with respect to the lower DesPlaines River from the I-55 Bridge to its confluence with the Kankakee River four percent of the hours by more than 5°F)~~.

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| | JAN. | FEB. | MAR. | APR. | MAY | JUN. | JUL. | AUG. | SEPT. | OCT. | NOV. | DEC. |
|--|------|------|------|------|-----|------|------|------|-------|------|------|------|
| Mississippi River (Wisc. Border to Iowa Border) (°F) | 45° | 45° | 57° | 68° | 78° | 85° | 86° | 86° | 85° | 75° | 65° | 52° |
| Mississippi River (Iowa Border to Alton Lock and Dam) (°F) | 45° | 45° | 57° | 68° | 78° | 86° | 88° | 88° | 86° | 75° | 65° | 52° |
| Mississippi River (So. of Alton Lock & Dam) (°F) | 50° | 50° | 60° | 70° | 80° | 87° | 89° | 89° | 87° | 78° | 70° | 57° |
| Ohio River (°F) | 50° | 50° | 60° | 70° | 80° | 87° | 89° | 89° | 87° | 78° | 70° | 57° |
| Wabash River & its interstate tributaries (°F) | 50° | 50° | 60° | 70° | 80° | 90° | 90° | 90° | 90° | 78° | 70° | 57° |
| Lower-DesPlaines River-from-the I-55-Bridge-to its-confluence with-the-Kankakee-River-(°F) | 60° | 60° | 70° | 77° | 85° | 90° | 90° | 90° | 90° | 90° | 76° | 70° |
| Other Waters (°F) | 60° | 60° | 60° | 90° | 90° | 90° | 90° | 90° | 90° | 90° | 90° | 60° |

Main river temperatures are temperatures of those portions of the river essentially similar to and following the same thermal regime as the temperatures of the main flow of the river.

- (5) The owner or operator of a source of heated effluent which discharges 0.5 billion British thermal units per hour or more shall demonstrate in a hearing before this Board not less than 5 nor more than 6 years after the effective date of these regulations or, in the case of new sources, after the commencement of operation, that discharges from that source have not caused and cannot be reasonably expected to cause significant ecological damage to the receiving waters. If such proof is not made to the satisfaction of the Board appropriate corrective measures shall be ordered to be taken within a reasonable time as determined by the Board.
- (6) Permits for heated effluent discharges, whether issued by the Board or the Environmental Protection Agency, shall be subject to revision in the event that reasonable future development creates a need for reallocation of the assimilative capacity of the receiving stream as defined in the regulation above.
- (7) The owner or operator of a source of heated effluent shall maintain such records and conduct such studies of the effluents from such sources and of their effects as may be required by the Environmental Protection Agency or in any permit granted under the Environmental Protection Act.
- (8) Appropriate corrective measures 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 receiving stream.
- ~~(9) The preceding temperature provisions regarding the Lower DesPlaines River from the I-55 Bridge to its confluence with the Kankakee River shall~~

~~be null and void after July 1, 1978.~~

- (9) ~~(10)~~ All effluents to an artificial cooling lake must comply with the applicable provisions of the thermal water quality standards as set forth in Rule 203(i), except when all of the following requirements are met:
- (aa) All discharges from the artificial cooling lake to other waters of the State comply with the applicable provisions of Rule 203(i)(1-4).
 - (bb) The heated effluent discharged to the artificial cooling lake complies with all other applicable provisions of this Chapter, except Rule 203(i)(1-4).
 - (cc) At an adjudicative hearing the discharger shall satisfactorily demonstrate to the Board that the artificial cooling lake receiving the heated effluent will be environmentally acceptable, and within the intent of the Act, including, but not limited to:
 - (1) provision of conditions capable of supporting shellfish, fish, and wildlife, and recreational uses consistent with good management practices, and
 - (2) control of the thermal component of the discharger's effluent by a technologically feasible and economically reasonable method.
 - (dd) The required showing in Rule 203(i)(10)(cc) may take the form of an acceptable final environmental impact statement or pertinent provisions of environmental assessments used in the preparation of the final environmental impact statement, or may take the form of a showing pursuant to §316(a) of the FWPCA, which addresses the requirements of Rule 203(i)(10)(cc).
 - (ee) If an adequate showing as provided in Rule

203(i)(10)(cc) is found, the Board shall promulgate specific thermal standards to be applied to the discharge to that artificial cooling lake.

(10) ~~(11)~~ Exceptions to Rule 203(i)

(aa) Lake Clinton:

The thermal discharge to Lake Clinton shall meet the following standards and conditions:

- (1) The effluent temperature shall not exceed 96°F.
- (2) All conditions adopted by Board Order in PCB 75-31 (July 31, 1975).

(bb) Lake Sangchris

The thermal discharge to Lake Sangchris shall meet the following standards and conditions:

- (1) The effluent temperature shall not exceed 99°F during more than seven (7) percent of the hours in the 12-month period ending with any month and shall at no time exceed 111°F.

203.1 Exceptions to Rule 203

- (a) The fluoride standard of Rule 203(f) shall not apply to waters of the State which:
 - (1) receive effluent from the mines and mills of the fluorspar mining and concentrating industry, and
 - (2) have been designated by the Illinois State Water Survey as streams which once in ten years have an average minimum seven day low flow of zero.

Such waters shall meet the following standard with regard to fluoride:

| <u>Constituent</u> | <u>STORET Number</u> | <u>Concentration (Mg/l)</u> |
|--------------------|----------------------|-----------------------------|
| Fluoride | 00950 | 5 |

- (b) The boron limitation in Rule 203(f) shall be inapplicable in the unnamed tributary of Wood River Creek which enters Wood River Creek 4700 feet above the confluence of Wood River Creek with the Mississippi River from a point 450 feet above the confluence of the unnamed tributary and Wood River Creek to said confluence, and in Wood River Creek from said confluence to the confluence of Wood River Creek and the Mississippi River, and in lieu of the limitation in Rule 203(f), the boron limitation shall be 15 mg/l in the aforesaid waterways.

204 Public and Food Processing Water Supply

In addition to the General Standards, waters designated in Part III of this Chapter for public and food processing water supply shall meet the following standards at any point at which water is withdrawn for treatment and distribution as a potable supply or for food processing except that such standards, including the General Standards may be exceeded if such occurrence results from the application of an algicide in accordance with the terms of an Algicide Permit issued by the Agency under Chapter VI, Rule 203 and 204(d) of these Rules and Regulations.

- (a) Water shall be of such quality that with treatment consisting of coagulation, sedimentation, filtration, storage and chlorination, or other equivalent treatment processes, the treated water shall meet in all respects the requirements of Table I, Rule 304, of Chapter 6 of these Rules and Regulations.
- (b) The following levels of chemical constituents shall not be exceeded:

| CONSTITUENT | STORET NUMBER | CONCENTRATION (mg/l) |
|--|--------------------------------|----------------------|
| Arsenic (total) | <u>01002</u> 01000 | 0.1 <u>0.05</u> |
| Barium (total) | <u>01007</u> 01005 | 1.0 |
| Cadmium (total) | <u>01027</u> 01025 | 0.010 |
| Chloride | 00940 | 250. |
| Chromium | 01034 | 0.05 |
| Foaming-Agents | 38260 | 0.5 |
| Iron (total) | 01045 | 0.3 <u>1.0</u> |
| Lead (total) | <u>01051</u> 01049 | 0.05 |
| Manganese (total) | 01055 | 0.05 <u>0.15</u> |
| Nitrate-Nitrogen | 00620 | 10. |
| Nitrite-Nitrogen | 00615 | 1. |
| Oil (hexane-solubles or equivalent) | 00550, <u>00556</u> , or 00560 | 0.1 |
| Organics | | |
| Carbon-Adsorbable | | |
| Carbon-Chloroform | | |
| Extract-(CCM)* | 32005 | 0.7 |
| Pesticides | | |
| Chlorinated Hydrocarbon | | |
| Insecticides | | |
| Aldrin | 39330 | 0.001 |
| Chlordane | 39350 | 0.003 |
| DDT | 39370 | 0.05 |
| Dieldrin | 39380 | 0.001 |
| Endrin | 39390 | 0.0005 <u>2</u> |
| Heptachlor | 39410 | 0.0001 |
| Heptachlor Epoxide | 39420 | 0.0001 |
| Lindane | 39782 | 0.005 <u>4</u> |
| Methoxychlor | 39480 | 0.1 |
| Toxaphene | 39400 | 0.005 |
| Organophosphate-Insecticides | | |
| Parathion | 39540 | 0.1 |
| Chlorophenoxy Herbicides | | |
| 2,4-Dichlorophenoxy-acetic acid (2,4-D) | 39730 | 0.02 <u>0.1</u> |
| 2,4,5-Trichlorophenoxy-propionic acid (2,4,5-TP or Silvex) | 39760 | 0.01 |
| Phenols | 32730 | 0.001 |
| Selenium (total) | <u>01147</u> 01145 | 0.01 |
| Sulphates | 00945 | 250. |
| Total Dissolved Solids | <u>70300</u> 00515 | 500. |

*The subscript-"m"-is-used-to-denote-that-this-parameter-is-determined-by-using-an-improved-miniaturized sampler-and-extraction-technique.

- (c) Other contaminants that will not be adequately reduced by the treatment processes noted in paragraph (a) of this Rule shall not be present in concentrations hazardous to human health.

206 Lake Michigan

The Waters of Lake Michigan shall meet the following standards in addition to the General and Public and Food processing Water Supply Standards:

- (a) Dissolved oxygen (STORET number - 00300) shall not be less than 90% of saturation except due to natural causes.
- (b) pH (STORET number - 00400) shall be within the range of 7.0 to 9.0 except for natural causes.
- (c) The following levels of chemical constituents shall not be exceeded:

| CONSTITUENT | STORET NUMBER | CONCENTRATION (mg/l) |
|--------------------------|-------------------------------|----------------------|
| Ammonia Nitrogen | 00610 | 0.02 |
| Chloride | 00940 | 12.0 |
| Sulfate | 00945 | 24.0 |
| Phosphorus (as P) | 00665 | 0.007 |
| Total Solids (Dissolved) | 00515 <u>70300</u> | 180.0 |
| Cyanide (total) | 00720 | 0.025 mg/l |

- (d) Based on a minimum of five samples taken over not more than a 30-day period, fecal coliforms (STORET number - 31616) shall not exceed a geometric mean of 20 per 100 ml.
- (e) Temperature [STORET numbers - (°F) 00011 and (°C) 00010]:
 - (1) (A) All sources of heated effluents in existence as of January 1, 1971 shall meet the follow-

ing 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 shall 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. | 45 | JUL. | 80 |
| FEB. | 45 | AUG. | 80 |
| MAR. | 45 | SEPT. | 80 |
| APR. | 55 | OCT. | 65 |
| MAY | 60 | NOV. | 60 |
| JUN. | 70 | DEC. | 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 five 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 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 TL_m 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.

302 Secondary Contact and Indigenous Aquatic Life Waters

Secondary Contact and Indigenous Aquatic Life Waters are those waters not suited for general use activities but which will be appropriate for all secondary contact uses and which will be capable of supporting an indigenous aquatic life limited only by the physical configuration of the body of water, characteristics and origin of the water and the presence of contaminants in amounts that do not exceed the applicable Rule 205 water quality standards. The following are designated as Secondary Contact and Indigenous Aquatic Life Waters:

- (a) The Chicago Sanitary and Ship Canal;
- (b) The Calumet - Sag Channel;
- (c) The Little Calumet River from its junction with the Grand Calumet River to the Calumet - Sag Channel;
- (d) The Grand Calumet River;
- (e) The Calumet River
- (f) Lake Calumet;
- (g) The South Branch of the Chicago River;
- (h) The North Branch of the Chicago River from its confluence with the North Shore Channel to its confluence with the South Branch;
- (i) The DesPlaines River from its confluence with the Chicago Sanitary and Ship Canal to the interstate 55 bridge; and

- (j) The North Shore Channel, except that dissolved oxygen in said Channel shall be not less than 5 mg/l during 16 hours of any 24 hours period, nor less than 4 mg/l at any time.
- ~~(k) All waters in which, by reason of low flow or other conditions, a diversified aquatic biota cannot be satisfactorily maintained even in the absence of contaminants.~~

Additions or deletions to the above list are governed by Part II of Chapter 1: Procedural Rules.

404 Deoxygenating Wastes

Except as provided in Rule 602 of this Chapter, all effluents containing deoxygenating wastes shall meet the following standards:

- (a) On and after July 1, 1972, or such earlier date as may have been specified in Rules and Regulations SWB-7 through SWB-15, no effluent shall exceed 30 mg/l of five day biochemical oxygen demand (BOD₅) (STORET number 00310) or ~~37~~ 30 mg/l of suspended solids (STORET number 00530), except as follows:
 - ~~(i) Sources discharging to the Mississippi or Ohio Rivers shall comply with this paragraph (a) by December 31, 1973, and~~
 - ~~(ii) Sources discharging to the Wabash River may discharge up to 40 mg/l of BOD₅ and 45 mg/l of suspended solids until December 31, 1974.~~
- (b) On and after July 1, 1972, or such earlier date as may have been specified in Rules and Regulations SWB-7 through SWB-15, no effluent from any source whose untreated waste load is 10,000 populations equivalents or more, or from any source discharging into the Chicago River System or into the Calumet River System, shall exceed 20 mg/l of BOD₅ or 25 mg/l of suspended solids, except as follows:
 - ~~(i) Sources discharging to the Mississippi or Ohio Rivers shall comply with this paragraph (b) by~~

December 31, 1973, and

- ~~(ii) Sources discharging to the Illinois or Wabash Rivers, or to the Des Plaines River downstream from its confluence with the Chicago Sanitary and Ship Canal, shall comply with this paragraph (b) by December 31, 1974.~~
- (c) On or after December 31, 1973, no effluent whose dilution ratio is less than five to one shall exceed 10 mg/l of BOD₅ or 12 mg/l of suspended solids, except as follows:
 - ~~(i) Sources within the Metropolitan Sanitary District of Greater Chicago whose untreated waste load is 500,000 population equivalents or more shall comply with this paragraph (c) by December 31, 1977.~~
 - ~~(ii) Sources whose dilution ratio is two to one or more but less than five to one shall comply with this paragraph (c) by December 31, 1974.~~
 - (i) ~~(iii)~~ Sources employing third-stage treatment lagoons shall be exempt from this paragraph (c) provided all of the following conditions are met:
 - (A) The untreated waste load is less than 2500 population equivalents; and
 - (B) The source is sufficiently isolated that combining with other sources to aggregate 2500 population equivalents or more is not practicable; and
 - (C) The lagoons are properly constructed, maintained, and operated; and
 - (D) The deoxygenating constituents of the effluent does do not, alone or in combination with other sources, cause a violation of the applicable dissolved oxygen water quality standard standards.
- (d) On or after December 31, 1974, no effluent discharged to the Lake Michigan basin shall exceed 4 mg/l of BOD₅

or 5 mg/l of suspended solids.

~~(e)~~ Deleted.

(e) ~~(f)~~ Except as provided in paragraphs (d) and ~~(e)~~ of this Rule 404, on or after December 31, 1973, no effluent whose dilution ratio is less than one to one shall exceed 4 mg/l of BOD₅ or 5 mg/l of suspended solids except as follows:

- (i) Sources employing third-stage treatment lagoons shall be exempt from this paragraph ~~(f)~~ (e), provided all of the conditions of subparagraph (c) (i) ~~(iii)~~ of this Rule 404 are met.
- (ii) Other sources not within paragraphs (d) and ~~(e)~~ of this Rule 404 shall be exempt from this paragraph provided all the following conditions are met:
 - (A) The deoxygenating constituents of the effluent shall not, alone or in combination with other sources, cause a violation of any the applicable dissolved oxygen water quality standard; and
 - ~~(B) The effluent shall not, alone or in a combination with other sources, cause dissolved oxygen in the waters of the State to fall below the levels set by the applicable Water quality standards.~~
 - (B) ~~(e)~~ The effluent shall not exceed 10 mg/l of BOD₅ or 12 mg/l of suspended solids; and
 - (C) ~~(D)~~ The owner or operator of such source shall file with the Agency the Project Completion Schedule required by Rule 1002 of this Chapter. In addition to the requirements of Rule 1002, such schedule shall include a program for achieving compliance with the above conditions and with applicable water quality standards, including, but not limited to, dissolved oxygen, bottom deposits, ammonia nitrogen, and phosphorus, with particular reference to nitrogenous oxygen demand and to

the control of stormwater overflows; and

(D) ~~(E)~~ The Agency finds that the program will within the compliance dates otherwise applicable assure compliance with the conditions of this subparagraph.

~~(g) Notwithstanding any other provisions of this Rule, any source affected by this Rule 404 and relying in good faith upon the dilution rules of Rules and Regulations SWB-7 through SWB-15 to comply with applicable effluent standards need not comply with the dilution standard of Rule 401(a) until December 31, 1974.~~

(f) ~~(h)~~ Compliance with the numerical standards in this Rule 404 shall be determined on the basis of 24-hour composite samples averaged over any consecutive 30-day period. ~~In addition, no more than 5% of the samples collected shall exceed 2.5 times the numerical limits prescribed by this Rule.~~ the type and frequency of sampling prescribed by the NPDES permit for the discharge at the time of monitoring.

407 Phosphorus (STORET number 00665)

(a) No effluent discharged within the Lake Michigan Basin shall contain more than 1.0 mg/l of phosphorus as P after December 31, 1971.

(b) No effluent from any source which discharges within the Fox River basin above and including Pistakee Lake and whose untreated waste load is 1500 or more population equivalents shall contain more than 1.0 mg/l of phosphorous as P. ~~after December 31, 1973.~~

(c) No effluent from any source which discharges to a lake or reservoir with a surface area of 20 acres or more or to any tributary to such a lake or reservoir and whose untreated waste load is 5000 or more population equivalents shall contain more than 1.0 mg/l of phosphorus as P.

(d) No effluent from any source which discharges to a lake or reservoir with a surface area of 20 acres or more

which does not comply with Rule 203(c) of this Chapter or to any tributary to such a lake or reservoir and whose untreated waste load is 1500 or more population equivalents and which is not governed by Rules 404(c)(i) or Rule 404(e)(i) of this Chapter shall contain more than 1.0 mg/l of phosphorus as P.

- (e) For the purposes of this Rule 407 the term "lake or reservoir" shall not include low level pools constructed in free flowing streams or any body of water which is an integral part of an operation which includes the application of sludge on land.
- (f) Compliance with the limitations of this Rule 407(c) shall be achieved by the following dates:
 - (i) new sources shall comply on the effective date of this regulation, and
 - (ii) existing sources shall comply by December 31, 1980, or such other date as required by NPDES permit, or as ordered by the Board under Title VIII or Title IX of the Act.
- (g) Compliance with the limitations of this Rule 407(d) shall be achieved by December 31, 1985, or such other date as required by NPDES permit, or as ordered by the Board under Title VIII or Title IX of the Act.

408 Additional Contaminants

- (a) The following levels of contaminants shall not be exceeded by any effluent:

| CONSTITUENT | STORET NUMBER | CONCENTRATION (mg/l) |
|--|-------------------------------|----------------------|
| Arsenic (total) | 01002 | 0.25 |
| Barium (total) | 01007 | 2.0 |
| Cadmium (total) | 01027 | 0.15 |
| Chromium (total hexavalent) | 01032 | 0.3 |
| Chromium (total trivalent) | 01033 | 1.0 |
| Copper (total) | 01042 | 1.0 |
| Cyanide (total) | 00720 | 0.10*** |
| Fluoride (total) | 00951 | 15.0 |
| Iron (total) | 01045 | 2.0 |
| Iron (dissolved) | 01046 | 0.5 |
| Lead (total) | 01051 | 0.1 |
| Manganese (total) | 01055 | 1.0 |
| Mercury (total) | 71900 | 0.0005 |
| Nickel (total) | 01067 | 1.0 |
| Oils, fats and greases | 00550, 00556, 00560 | 15.00** |
| pH | 00400 | range 5-10* |
| Phenols | 32730 | 0.3 |
| Selenium (total) | 01145 <u>01147</u> | 1.0 |
| Silver | 01077 | 0.1 |
| Zinc (total) | 01092 | 1.0 |
| Total Suspended Solids (from sources other than those covered by Rule 404) | 00530 | 15.0 |

*The pH limitation is not subject to averaging and must be met at all times.

**Oil may be analytically separated into polar and nonpolar components. If such separation is done, neither of the components may exceed 15 mg/l (i.e., 15 mg/l polar materials and 15 mg/l non-polar materials). Compliance with this numerical standard shall be determined on the basis of 24 hour composite samples, averaged over any monthly period; provided, however, that no single 24 hour composite shall be greater than 2 times the numerical standard and no grab sample shall be greater than 5 times the numerical standard.

***Except for discharges from the Calumet Treatment Plant of the Metropolitan Sanitary District of Greater Chicago, which shall not exceed 0.15 mg/l. Compliance with cyanide effluent limitations shall be determined by 24 hour composite samples averaged over any monthly period; no single 24-hour composite sample shall exceed twice the numerical standard and no instantaneous (grab) sample shall exceed five times the numerical standard.

(b) Total Dissolved Solids (STORET Number ~~00515~~ 70300) shall not be increased more than 750 mg/l above background concentration levels unless caused by recycling or other pollution abatement practices, and in no event shall exceed 3500 mg/l at any time; provided, however, this Rule shall not apply to any effluent discharging to the Mississippi River, which after mixing as set forth in Rule 201, meets the applicable water quality standards for Total Dissolved Solids.

~~(c) Compliance with the limitations of this Rule 408 shall be achieved by the following dates:~~

~~(i) With respect to mercury, by April 25, 1971;~~

~~(ii) With respect to all other specified contaminants,~~

~~(A) New sources shall comply on the effective date of this regulation;~~

~~(B) Existing sources shall comply by December 31, 1973.~~

IT IS SO ORDERED.

Mr. Young concurs.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Proposed Order was adopted on the 4th day of January, 1978 by a vote of 4-0.


Christan L. Moffett, Clerk
Illinois Pollution Control Board