# TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE C: WATER POLLUTION CHAPTER I: POLLUTION CONTROL BOARD

# PART 304 EFFLUENT STANDARDS

#### SUBPART A: GENERAL EFFLUENT STANDARDS

- Section
- 304.101 Preamble
- 304.102 Dilution
- 304.103 Background Concentrations
- 304.104 Averaging
- 304.105 Violation of Water Quality Standards
- 304.106 Offensive Discharges
- 304.120 Deoxygenating Wastes
- 304.121 Bacteria
- 304.122 Total Ammonia Nitrogen
- 304.123 Phosphorus
- 304.124 Additional Contaminants
- 304.125 рН
- 304.126 Mercury
- 304.140 Delays in Upgrading (Repealed)
- 304.141 NPDES Effluent Standards
- 304.142 New Source Performance Standards (Repealed)

# SUBPART B: SITE SPECIFIC RULES AND EXCEPTIONS NOT OF GENERAL APPLICABILITY

- Section
- 304.201 Wastewater Treatment Plant Discharges of the Metropolitan Water **Reclamation District of Greater Chicago** Chlor-alkali Mercury Discharges in St. Clair County 304.202 Copper Discharges by Olin Corporation 304.203 304.204 Schoenberger Creek: Groundwater Discharges John Deere Foundry Discharges (Repealed) 304.205 Alton Water Company Treatment Plant Discharges 304.206 304.207 Galesburg Sanitary District Deoxygenating Wastes Discharges **City of Lockport Treatment Plant Discharges** 304.208 Wood River Station Total Suspended Solids Discharges 304.209 304.210 Alton Wastewater Treatment Plant Discharges Discharges From Borden Chemicals and Plastics Operating Limited 304.211 Partnership Into an Unnamed Tributary of Long Point Slough (Repealed) Sanitary District of Decatur Discharges 304.212 304.213 PDV Midwest Refining, L.L.C. Refinery Ammonia Discharge (Repealed) Mobil Oil Refinery Ammonia Discharge (Repealed) 304.214

| 304.215    | City of Tuscola Wastewater Treatment Facility Discharges           |
|------------|--|
| 304.216    | Newton Station Suspended Solids Discharges                         |
| 304.218    | City of Pana Phosphorus Discharge                                  |
| 304.219    | North Shore Water Reclamation District Phosphorus Discharges       |
| 304.220    | East St. Louis Treatment Facility, Illinois-American Water Company |
| (Repealed) |  |
| 304.221    | Ringwood Drive Manufacturing Facility in McHenry County            |
| 304.222    | Intermittent Discharge of TRC                                      |
| 304.224    | Effluent Disinfection  |

#### SUBPART C: TEMPORARY EFFLUENT STANDARDS

Section

| Section |  |
|---------|--|
| 304.301 | Exception for Ammonia Nitrogen Water Quality Violations (Repealed) |
| 304.302 | City of Joliet East Side Wastewater Treatment Plant (Repealed)     |
| 304.303 | Amerock Corporation, Rockford Facility (Repealed)                  |
|         |  |

304.APPENDIX A References to Previous Rules (Repealed)

AUTHORITY: Implementing Section 13 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/13 and 27].

SOURCE: Filed with the Secretary of State January 1, 1978; amended at 2 Ill. Reg. 30, p. 343, effective July 27, 1978; amended at 2 Ill. Reg. 44, p. 151, effective November 2, 1978; amended at 3 Ill. Reg. 20, p. 95, effective May 17, 1979; amended at 3 Ill. Reg. 25, p. 190, effective June 21, 1979; amended at 4 Ill. Reg. 20, p. 53, effective May 7, 1980; amended at 6 Ill. Reg. 563, effective December 24, 1981; codified at 6 Ill. Reg. 7818; amended at 6 Ill. Reg. 11161, effective September 7, 1982; amended at 6 Ill. Reg. 13750, effective October 26, 1982; amended at 7 Ill. Reg. 3020, effective March 4, 1983; amended at 7 Ill. Reg. 8111, effective June 23, 1983; amended at 7 Ill. Reg. 14515, effective October 14, 1983; amended at 7 Ill. Reg. 14910, effective November 14, 1983; amended at 8 Ill. Reg. 1600, effective January 18, 1984; amended at 8 Ill. Reg. 3687, effective March 14, 1984; amended at 8 Ill. Reg. 8237, effective June 8, 1984; amended at 9 Ill. Reg. 1379, effective January 21, 1985; amended at 9 Ill. Reg. 4510, effective March 22, 1985; peremptory amendment at 10 Ill. Reg. 456, effective December 23, 1985; amended at 11 Ill. Reg. 3117, effective January 28, 1987; amended in R84-13 at 11 Ill. Reg. 7291, effective April 3, 1987; amended in R86-17(A) at 11 Ill. Reg. 14748, effective August 24, 1987; amended in R84-16 at 12 Ill. Reg. 2445, effective January 15, 1988; amended in R83-23 at 12 Ill. Reg. 8658, effective May 10, 1988; amended in R87-27 at 12 Ill. Reg. 9905, effective May 27, 1988; amended in R82-7 at 12 Ill. Reg. 10712, effective June 9, 1988; amended in R85-29 at 12 Ill. Reg. 12064, effective July 12, 1988; amended in R87-22 at 12 Ill. Reg. 13966, effective August 23, 1988; amended in R86-3 at 12 Ill. Reg. 20126, effective November 16, 1988; amended in R84-20 at 13 Ill. Reg. 851, effective January 9, 1989; amended in R85-11 at 13 Ill. Reg. 2060, effective February 6, 1989; amended in R88-1 at 13 Ill. Reg. 5976, effective

April 18, 1989; amended in R86-17(B) at 13 Ill. Reg. 7754, effective May 4, 1989; amended in R88-22 at 13 Ill. Reg. 8880, effective May 26, 1989; amended in R87-6 at 14 Ill. Reg. 6777, effective April 24, 1990; amended in R87-36 at 14 Ill. Reg. 9437, effective May 31, 1990; amended in R88-21(B) at 14 Ill. Reg. 12538, effective July 18, 1990; amended in R84-44 at 14 Ill. Reg. 20719, effective December 11, 1990; amended in R86-14 at 15 Ill. Reg. 241, effective December 18, 1990; amended in R93-8 at 18 Ill. Reg. 267, effective December 23, 1993; amended in R87-33 at 18 Ill. Reg. 11574, effective July 7, 1994; amended in R95-14 at 20 Ill. Reg. 3528, effective February 8, 1996; amended in R94-1(B) at 21 Ill. Reg. 364, effective December 23, 1996; expedited correction in R94-1(B) at 21 Ill. Reg. 6269, effective December 23, 1996; amended in R97-25 at 22 Ill. Reg. 1351, effective December 24, 1997; amended in R97-28 at 22 Ill. Reg. 3512, effective February 3, 1998; amended in R98-14 at 23 Ill. Reg. 687, effective December 31, 1998; amended in R02-19 at 26 Ill. Reg. 16948, effective November 8, 2002; amended in R02-11 at 27 Ill. Reg. 194, effective December 20, 2002; amended in R04-26 at 30 Ill. Reg. 2365, effective February 2, 2006; amended in R08-9B at 36 Ill. Reg. 2586, effective February 2, 2012; amended in R13-20 at 38 Ill. Reg.6107, effective February 26, 2014; amended in R18-23 at 47 Ill. Reg. 4601, effective March 23, 2023.

#### SUBPART A: GENERAL EFFLUENT STANDARDS

#### Section 304.101 Preamble

This Part establishes the maximum concentrations of various contaminants that may be discharged into the waters of the State. Subpart A contains general effluent limitations. Subpart B contains site-specific rules and exceptions not of general applicability. Subpart C contains temporary rules.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.102 Dilution

- a) Diluting the effluent from a treatment works or any wastewater source is not acceptable as a method of treatment of wastes to meet the standards in this Part. It is the obligation of any person discharging contaminants of any kind into the waters of the State to provide the best degree of treatment of wastewater consistent with technological feasibility, economic reasonableness, and sound engineering judgment. In determining what kind of treatment is the "best degree of treatment" within the meaning of this subsection, a person must consider the following:
  - 1) What degree of waste reduction can be achieved by process change, improved housekeeping, and recovery of individual waste components for reuse; and

- 2) Whether individual process wastewater streams should be segregated or combined.
- b) In any case, to determine compliance with the effluent standards, contaminant concentrations must be measured at the point immediately following the final treatment process and before mixture with other waters, unless the Agency designates another point in an individual permit, after considering the elements contained in this Section. If necessary, the concentrations measured must be recomputed to exclude the effect of any dilution that is improper under this Section.

# Section 304.103 Background Concentrations

Because the effluent standards in this Part are based on concentrations achievable with conventional treatment technology that is largely unaffected by ordinary levels of contaminants in intake water, they are absolute standards that must be met without subtracting background concentrations. However, these rules do not intend to require users to clean up contamination caused essentially by upstream sources or to require treatment when only traces of contaminants are added to the background. Compliance with the numerical effluent standards is not required when effluent concentrations greater than the standards result entirely from influent contamination, evaporation, or the incidental addition of traces of materials not used or produced in the activity that is the waste source.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.104 Averaging

- a) Except as otherwise specifically provided, proof of violation of the numerical standards of this Part must be based on one or more of the following averaging rules:
  - 1) A monthly average must not exceed the prescribed numerical standard.
  - 2) A daily composite must not exceed two times the prescribed numerical standard.
  - 3) A grab sample must not exceed five times the prescribed numerical standard.
- b) Terms used in subsection (a) have the following meanings:

- 1) The monthly average is the numerical average of all daily composites taken during a calendar month. A monthly average must be based on at least three daily composites.
- 2) A daily composite is the numerical average of all grab samples, or the result of analysis of a single sample formed by combining all aliquots, taken during a calendar day. A daily composite must be based on at least three grab samples or three aliquots taken at different times.
- 3) A grab sample is a sample taken at a single time. Aliquots of a daily composite are grab samples only if they are analyzed separately.
- c) Subsection (a) establishes a method for interpreting the effluent standards of this Part. The Agency must consider the averaging rule in deciding whether an applicant has demonstrated that a facility complies with this Part for purposes of permit issuance and in writing the effluent standards into permit conditions. Reporting and monitoring requirements are established by permit conditions under 35 Ill. Adm. Code 305.102 and 309.146.
- d) Proof of violation of effluent limitations contained in permits must be based on the language of the permit.

# Section 304.105 Violation of Water Quality Standards

In addition to the other requirements of this Part, effluent must not, alone or in combination with other sources, cause a violation of any applicable water quality standard. When the Agency finds that a discharge that would comply with effluent standards in this Part would cause or is causing a violation of water quality standards, the Agency must take appropriate action under Section 31 or Section 39 of the Act to require the discharge to meet whatever effluent limits are necessary to ensure compliance with the water quality standards. When such a violation is caused by the cumulative effect of more than one source, several sources may be joined in an enforcement or variance proceeding, and measures for necessary effluent reductions will be determined based on technical feasibility, economic reasonableness, and fairness to all dischargers.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.106 Offensive Discharges

In addition to the other requirements of this Part, effluent must not contain settleable solids, floating debris, visible oil, grease, scum or sludge solids. Color, odor and turbidity must be reduced to below obvious levels.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.120 Deoxygenating Wastes

Except as provided in 35 Ill. Adm. Code 306.Subpart\_C, all effluents containing deoxygenating wastes must meet the following standards:

- a) Effluents must not exceed 30 mg/L of five-day biochemical oxygen demand (BOD<sub>5</sub>) or 30 mg/L of suspended solids, except that treatment works employing three-stage lagoon treatment systems which are properly designed, maintained and operated, and whose effluent has a dilution ratio no less than five to one or who qualify for exceptions under subsection (c) must not exceed 37 mg/L of suspended solids.
- b) Effluents from any source whose untreated waste load is 10,000 population equivalents or more, or from any source discharging into the Chicago River System or the Calumet River System, must not exceed 20 mg/L of BOD<sub>5</sub> or 25 mg/L of suspended solids.
- c) Effluents whose dilution ratio is less than five to one must not exceed 10 mg/L of BOD<sub>5</sub> or 12 mg/L of suspended solids, except that sources employing third-stage treatment lagoons are be exempt from this subsection (c) provided all of the following conditions are met:
  - 1) The waste source qualifies under one of the following categories:
    - A) Any wastewater treatment works with an untreated waste load less than 2500 population equivalents, which is sufficiently isolated that combining with other sources to aggregate 2500 population equivalents or more is not practicable.
    - B) Any wastewater treatment works in existence and employing third-stage treatment lagoons on January 1, 1986, whose untreated waste load is 5000 population equivalents or less and sufficiently isolated that combining to aggregate 5000 population equivalents or more is not practicable.
    - C) Any wastewater treatment works with an untreated waste load of 5000 population equivalents or less, which has reached the end of its useful life by January 1, 1987, and is

sufficiently isolated that combining to aggregate 5000 population equivalents or more is not practicable.

- D) Any wastewater treatment works with an untreated waste load of 5000 population equivalents or less which has reached the end of its useful life and which has received an adjusted standard determination from the Board that it qualifies for a lagoon exemption. Such a Board determination will only be made in an adjusted standard proceeding, held in compliance with Section 28.1 of the Environmental Protection Act [415 ILCS 5/28.1] and applicable procedures at 35 Ill. Adm. Code 104.
  - In an adjusted standard proceeding the Board may determine that the petitioning wastewater treatment source qualifies for a lagoon exemption if the wastewater treatment works proves that it is so situated that a land treatment system is not a suitable treatment alternative. Factors relevant to a suitability finding may include the following: cost; influent character; geographic characteristics; climate; soil conditions; hydrologic conditions; and the availability of irrigable land.
  - ii) For subsection (c)(1)(D), a land treatment system is a wastewater treatment system that does not directly discharge treated effluent into the waters of the State but instead uses the treated effluent to irrigate terrestrial vegetation;
- 2) The lagoons are properly constructed, maintained and operated; and
- 3) The deoxygenating constituents of the effluent do not, alone or in combination with other sources, cause a violation of the applicable dissolved oxygen water quality standard.
- d) Effluents discharged to the Lake Michigan basin must not exceed 4 mg/L of BOD<sub>5</sub> or 5 mg/L of suspended solids.
- e) Compliance with the numerical standards in this Section must be determined based on the type and frequency of sampling prescribed by the NPDES permit for the discharge at the time of monitoring.
- f) For this Section, useful life is the period of time during which it is costeffective to operate and maintain a particular wastewater treatment works

under consideration. At a minimum, the following factors relating to a wastewater treatment works must be considered in determining its useful life:

- 1) Structural and operational condition of components;
- 2) Past operations and maintenance records;
- 3) Cost for continued use; and
- 4) Description and costs of treatment alternatives.
- g) Compliance with the five-day biochemical oxygen demand (BOD<sub>5</sub>) numerical standard in this Part will be determined by the analysis of fiveday carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>), unless federal regulations require treatment works treating industrial wastes to comply with more stringent requirements determined by the analysis of BOD<sub>5</sub>. Effluent from the treatment works subject to the requirements of Section 304.120(a) must not exceed 25 mg/L CBOD<sub>5</sub>.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.121 Bacteria

- a) Effluents discharged to all general use waters must not exceed 400 fecal coliforms per 100 ml unless the Illinois Environmental Protection Agency determines that an alternative effluent standard is applicable under subsection (b).
- b) The Agency must, as part of the NPDES Permit Program under 35 Ill. Adm. Code 309.Subpart A, determine the applicable standard only in compliance with the requirements of 35 Ill. Adm. Code 302.209 and 302.306.
  - 1) The discharger must demonstrate and document the following:
    - A) The character of the receiving waters under 35 Ill. Adm. Code 302.202, 302.209, and 302.306.
    - B) The discharge will not cause downstream waters to exceed the applicable fecal coliform water quality standards under 35 Ill. Adm. Code 302.209 and 302.306.
  - 2) Alternate effluent standards consistent with 35 Ill. Adm. Code 302.209 and 302.306 must be applied on either a year-round or

seasonal basis consistent with the documentation provided by the discharger.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.122 Total Ammonia Nitrogen

- a) Effluent from any source that discharges into the Illinois River, the Des Plaines River downstream of its confluence with the Chicago River System, or the Calumet River System, and whose untreated waste load is 50,000 or more population equivalents must not contain more than 2.5 mg/L of total ammonia nitrogen as N during the months of April through October, or 4 mg/L at other times.
- b) Sources discharging to any of the above waters and whose untreated waste load cannot be computed on a population equivalent basis comparable to that used for municipal waste treatment plants and whose total ammonia nitrogen as N discharge exceeds 45.4 kg/day (100 pounds per day) must not discharge an effluent of more than 3.0 mg/L of total ammonia nitrogen as N.
- c) In addition to the effluent standards in subsections (a) and (b), all sources are subject to Section 304.105

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.123 Phosphorus

- a) Effluents discharged within the Lake Michigan Basin must not contain more than 1.0 mg/L of phosphorus as P.
- b) Effluents from any source that discharges to a lake or reservoir with a surface area of 8.1 hectares (20 acres) or more, or to any tributary of such a lake or reservoir whose untreated waste load is 2500 or more population equivalents, and which does not utilize a third-stage lagoon treatment system as specified in Section 304.120(a) and (c), must not exceed 1.0 mg/L of phosphorus as P; however, this subsection does not apply where the lake or reservoir, including any side channel reservoir or other portion of it, on an annual basis exhibits a mean hydraulic retention time of 0.05 years (18 days) or less.
- c) Under Section 28.1 of the Environmental Protection Act (Act) [415 ILCS 5/28.1], the owner or operator of any source subject to subsection (b) may apply for an adjusted standard. In addition to the proofs specified in Section 28.1(c) of the Act [415 ILCS 5/28.1(c)], the application must, at a minimum, contain adequate proof that the effluent resulting from granting

the adjusted standard will not contribute to cultural eutrophication, unnatural plant or algal growth or dissolved oxygen deficiencies in the receiving lake or reservoir. For purposes of this subsection, effluent must be deemed to contribute to such conditions if phosphorus is the limiting nutrient for biological growth in the lake or reservoir, taking into account the lake or reservoir limnology, morphological, physical and chemical characteristics, and sediment transport. However, if the effluent discharge enters a tributary at least 40.25 kilometers (25 miles) upstream of the point at which the tributary enters the lake or reservoir at normal pool level, effluent will\_not be deemed to contribute to such conditions if the receiving lake or reservoir is eutrophic and phosphorus from internal regeneration is not a limiting nutrient.

- d) For this Section, the term "lake or reservoir" does not include low-level pools constructed in free-flowing streams or any body of water that is an integral part of an operation that includes the application of sludge on land.
- e) Compliance with the limitations of subsection (b) must be achieved by the following dates:
  - 1) Sources with the present capability to comply must do so on the effective date of this Section;
  - 2) All other sources must comply as required their NPDES permits.
- f) For purposes of this Section, the following terms have the meanings specified:
  - "Dissolved oxygen deficiencies" means the occurrence of a violation of the dissolved oxygen standard applicable to a lake or reservoir.

(BOARD NOTE: Dissolved Oxygen standards for general use waters are at 35 Ill. Adm. Code 302.206; Dissolved Oxygen standards are at 35 Ill. Adm. Code 302.405 for:

302.405(a): South Fork of the South Branch of the Chicago River (Bubbly Creek);
302.405(b): Upper Dresden Island Pool Aquatic Life Use waters;
302.405(c): Chicago Area Waterway System Aquatic Life Use A waters; and
302.405(d): Chicago Area Waterway System and Brandon Pool Aquatic Life Use B waters.)

- 2) "Euphotic zone" means that region of a lake or reservoir extending from the water surface to a depth at which 99% of the surface light has disappeared or such lesser depth below which photosynthesis does not occur.
- 3) "Eutrophic" means a condition of a lake or reservoir in which there is an abundant supply of nutrients, including phosphorus, accounting for a high concentration of biomass.
- 4) "Eutrophication" means the process of increasing or accumulating plant nutrients in the water of a lake or reservoir. Cultural eutrophication is eutrophication attributable to human activities.
- 5) "Internal regeneration" means the process of conversion of phosphorus or other nutrients in sediments of a lake or reservoir from the particulate to the dissolved form and the subsequent return of such dissolved forms to the euphotic zone.
- 6) "Limiting nutrient" means a substance that is limiting to biological growth in a lake or reservoir due to its short supply or unavailability for other substances necessary for the growth of organisms.
- 7) "Unnatural plant or algal growth" means the occurrence of a violation of the unnatural sludge standard applicable to a lake or reservoir based on growth.

(BOARD NOTE: Unnatural sludge standards for general use waters are at 35 Ill. Adm. Code 302.203; unnatural sludge standards for the Chicago Area Waterway System and Lower Des Plaines River waters are at 35 Ill. Adm. Code 302.403.)

- g) Except as provided in subsection (h), any new or expanded discharges into General Use waters from the following treatment works not covered by subsections (b) through (f), are subject to monthly average permit limits for total phosphorus of 1 mg/L:
  - 1) Treatment works with a Design Average Flow of 1.0 million gallons per day or more receiving primarily municipal or domestic wastewater; or
  - 2) Any treatment works, other than those treating primarily municipal or domestic wastewater, with a total phosphorus effluent load of 25 pounds per day or more.
  - 3) For purposes of this subsection:

- A) A new discharge means a discharge from a treatment works constructed after February 2, 2006.
- B) An expanded discharge means a discharge from any existing treatment works that would be greater than the flow rates permitted before February 2, 2006.
- h) Discharges qualifying under subsections (g)(1) and (g)(2) may not be subject to the requirements of subsection (g) if the discharger demonstrates that phosphorus from treatment works is not the limiting nutrient in the receiving water. The Agency may impose alternative phosphorus effluent limits where the supporting information shows that alternative limits are warranted by the aquatic environment in the receiving stream.
- i) No additional phosphorus limitations are required under Section 304.105 and 35 Ill. Adm. Code 302.203 for the discharges that comply with the requirements of subsection (g) or (h).
- j) The provisions of subsections (g), (h), and (i) apply until the Board adopts a numeric water quality standard for phosphorus and the adopted standard is approved by the USEPA.
- k) The averaging rules under Section 304.104 (a)(2) and (a)(3) do not apply to permit limits established under subsection (g) or (h).

#### Section 304.124 Additional Contaminants

a) A person must not cause or allow the concentration of the following constituents in any effluent to exceed the following levels, subject to the averaging rules in Section 304.104(a).

| CONCENTRATION |
|---------------|
| mg/L          |
|               |
| 0.25          |
| 2.0           |
| 0.15          |
| 0.1           |
| 1.0           |
| 0.5           |
| 0.10          |
| 15.0          |
|               |

| Iron (total)            | 2.0  |
|-------------------------|------|
| Lead                    | 0.2  |
| Manganese               | 1.0  |
| Nickel                  | 1.0  |
| Oils (hexane soluble or |      |
| equivalent)             | 15.0 |
| Phenols                 | 0.3  |
| Silver                  | 0.1  |
| Zinc                    | 1.0  |
| Total Suspended Solids  | 15.0 |
| (From sources other     |      |
| than those covered by   |      |
| Section 304.120)        |      |

- b) Discharges of hexavalent chromium are subject to the averaging rule of Section 304.104 modified as follows: monthly averages must not exceed 0.1 mg/L; daily composites must not exceed 0.3 mg/L; and, grab samples must not exceed 1.0 mg/L.
- c) Oil may be analytically separated into polar and nonpolar components. If separated, neither of the components may exceed 15 mg/L (i.e. 15 mg/L polar materials and 15 mg/L nonpolar materials).
- d) Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states. Where constituents are commonly measured as other than total, the word "total" is inserted for clarity.
- e) The following table is provided for cross-referencing purposes:

| CONSTITUENT                           | SECTIONS           |
|---------------------------------------|--------------------|
| Ammonia nitrogen                      | 304.301, 304.122   |
| Bacteria<br>Biochemical Oxygen Demand | 304.121<br>304.120 |
| Deoxygenating Wastes<br>Mercury       | 304.120<br>304.126 |
| Nitrogen, ammonia                     | 304.301, 304.122   |
| pH                                    | 304.125            |
| Phosphorus                            | 304.123            |

#### Section 304.125 pH

a) Except as provided below a person must not cause or allow the negative logarithm of the hydrogen ion concentration (pH) in any effluent to be more or less respectively than the maximum and minimum values for pH range indicated in the following table:

| CONSTITUENT | RANGE (pH<br>units) |
|-------------|---------------------|
|             |                     |

b) The pH limitation is not subject to the averaging rule contained in Section 304.104(a).

6-9

- c) Effluents that are monitored to provide a permanent, continuous pH record may be outside of the listed range for a total of not more than fifteen minutes in any day provided the excursion is accidental and less than one pH unit above or below the listed range.
- d) The pH 9 maximum limitation may be exceeded if the elevated pH level:
  - 1) is caused entirely by algae in treatment lagoons, in which case there is no upper pH limit; or
  - 2) is caused by the addition of alkali in the wastewater treatment process to cause precipitation of barium, cadmium, chromium, copper, lead, manganese, zinc, or other materials requiring such elevated pH for treatment, in which case the upper limit is pH 10 and subsection (c) does not apply to the upper limit.
- e) The burden of proving that subsection (c) or (d) applies is upon the discharger.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.126 Mercury

pН

a) Except as provided below, a person must not cause or allow the concentration of mercury in any effluent to exceed the following level, subject to the averaging rule contained in Section 304.104(a).

| CONSTITUENT | CONCENTRATION mg/L |
|-------------|--------------------|
| Mercury     | 0.0005             |

- b) It is an exception to subsection (a) if all of the following conditions are met:
  - 1) The discharger does not use mercury; or, the discharger uses mercury and this use cannot be eliminated; or, the discharger uses mercury only in chemical analysis or in laboratory or other equipment and takes reasonable care to avoid contamination of wastewater;
  - 2) The effluent mercury concentration is less than 0.003 mg/L, as determined by applying the averaging rules of Section 304.104(a);
  - 3) The discharger is providing the best degree of treatment consistent with technological feasibility, economic reasonableness, and sound engineering judgment. This may include no treatment for mercury; and
  - 4) The discharger has an inspection and maintenance program likely to reduce or prevent an increase in the level of mercury discharges.
- c) It is an exception to subsection (a) if all of the following conditions are met:
  - 1) The discharger is a publicly owned or publicly regulated sewage treatment works;
  - 2) The discharger does not use mercury; or, the discharger uses mercury only in chemical analysis or in laboratory or other equipment and takes reasonable care to avoid contamination of wastewater;
  - 3) The effluent mercury concentration is less than 0.003 mg/L, as determined by applying the averaging rules of Section 304.104(a); provided, however, that daily averages may exceed 0.006 mg/L 30% of the time;
  - 4) The discharger has enforceable ordinances or contract provisions by which it limits the use of mercury by dischargers and the discharge of mercury into its sewage system;
  - 5) The discharger's limitations on the use and discharge of mercury to its sewage system are at least as stringent as those provided in 35 Ill. Adm. Code 307.1102;

- 6) The discharger has a surveillance program with a reasonable likelihood of determining sources of mercury discharged to the sewage system;
- 7) The discharger takes all lawful steps to eliminate known mercury discharges to the sewage system that contribute to levels exceeding those allowed by 35 Ill. Adm. Code 307.1102; and
- 8) The discharger reports all known violations of 35 Ill. Adm. Code 307.1102 to the Agency.
- d) When it issues a permit, the Agency may consider applying the exceptions of this Section to determine compliance with this Section. The Agency may impose permit conditions necessary or required to assure continued application of an exception. When subsection (b) applies, the Agency may impose an effluent limitation in the permit which allows discharge of a concentration of mercury greater than 0.0005 mg/L but not more than 0.003 mg/L.

# Section 304.140 Delays in Upgrading (Repealed)

(Source: Repealed at R88-1 at 13 Ill. Reg. 5976, effective April 18, 1989)

# Section 304.141 NPDES Effluent Standards

- a) A person that has been issued an NPDES Permit must not discharge any contaminant in its effluent in excess of the standards and limitations for that contaminant in its permit.
- b) A person must not discharge any pollutant subject to, or that contributes to or threatens to cause a violation of, any applicable federal or State water quality standard, effluent standard, guideline, or other limitation, promulgated under the CWA or the Act, unless a limitation for the pollutant is in an applicable NPDES Permit. However, the Agency may, by permit condition, provide that the permittee may discharge pollutants present in its water supply intake sources in concentrations not greater than the concentrations in the intake sources, or which are added in trace amounts by normal domestic water usage.

BOARD NOTE: Section 304.141(b) was declared invalid in Peabody Coal Co. v. PCB, 3 Ill. App. 3d 5 (5<sup>th</sup> District, 1976) and declared valid in U.S. Steel v. PCB, 52 Ill. App. 3d 1 (2d District, 1977).

c) The standards of this Chapter apply to thermal discharges unless, after

public notice and opportunity for a public hearing, in compliance with section 316 of the CWA, applicable federal regulations, and procedures in 35 Ill. Adm. Code 106.Subpart K, the Board has determined that different standards apply to a particular thermal discharge.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.142 New Source Performance Standards (Repealed)

(Source: Repealed at 8 Ill. Reg. 1600, effective January 18, 1984)

# SUBPART B: SITE SPECIFIC RULES AND EXCEPTIONS NOT OF GENERAL APPLICABILITY

# Section 304.201 Wastewater Treatment Plant Discharges of The Metropolitan Water

# **Reclamation District of Greater Chicago**

 a) Calumet Treatment Plant Discharges: The effluent standards of Section 304.124 as applied to cyanide discharges, Section 304.120(b) and (c), and Section 304.122 do not apply to carbonaceous BOD<sub>5</sub> (CBOD<sub>5</sub>), total suspended solids (TSS), cyanide, and ammonia-nitrogen as N discharged from the Calumet Sewage Treatment Works of The Metropolitan Water Reclamation District of Greater Chicago. Instead, it must meet the following effluent standards, subject to the averaging rule of Section 304.104(a), effective July 1, 1988:

CONSTITUENT CONCENTRATION (mg/L)

| CBOD <sub>5</sub> | 24   |
|-------------------|------|
| TSS               | 28   |
| Ammonia Nitrogen  | 13   |
| (as N)            |      |
| Cyanide           | 0.15 |

 b) North Side Sewage Treatment Works: The effluent standards of Sections 304.120(b) and (c) and 304.122 do not apply to carbonaceous BOD<sub>5</sub> (CBOD<sub>5</sub>), total suspended solids (TSS), and ammonia-nitrogen discharged from the North Side Sewage Treatment Works of The Metropolitan Water Reclamation District of Greater Chicago. Instead, it must meet the following standard, subject to the averaging rule of Section 304.104(a) effective July 1, 1988:

CONSTITUENT

CONCENTRATION (mg/L)

| CBOD5                      | 12  |
|----------------------------|-----|
| TSS                        | 20  |
| Ammonia Nitrogen<br>(as N) | -   |
| April-October              | 2.5 |
| November-March             | 4.0 |

#### Section 304.202 Chlor-alkali Mercury Discharges in St. Clair County

The mercury discharge standards of Section 304.124 and 35 Ill. Adm. Code 307.1102 do not apply to any manufacturing facility that operates chlor-alkali cells, is located in St. Clair County, and discharges directly or indirectly into the Mississippi River; or to any publicly owned treatment works that receives a manufacturing facility's wastewater. The amount of mercury discharged by any such manufacturing facility must not exceed an average of 114 g/day (0.25 pounds per day) during any calendar month and a maximum of 227 g (0.5 pounds) during any one day. Any publicly owned treatment works that, directly or indirectly, receives such a manufacturing facility's wastewater is entitled to discharge mercury exceeding the levels provided in Section 304.124 to the extent that the discharge exceeds those levels because of such a manufacturing facility's discharge.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.203 Copper Discharges by Olin Corporation

This Section applies to an existing facility owned by Olin Corporation which discharges to Wood River Creek and the East Fork of Wood River Creek in Madison County. The facility's discharges are not subject to Section 304.105 as it applies to the water quality standard for copper of 35 Ill. Adm. Code 302.208.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.204 Schoenberger Creek: Groundwater Discharges

- a) This rule applies to discharges from an existing facility owned by Pfizer Corporation to Schoenberger Creek immediately south of the Baltimore and Ohio main tracks in T2N, R9W of the 3rd P.M., St. Clair County.
- b) This rule applies only to discharges of groundwater used as non-contact cooling water in which naturally occurring background concentrations have not been increased by industrial or other human use.
- c) Instead of the general effluent standards in Section 304.124 for the listed parameters, these discharges must not exceed the following limitations:

| CONSTITUENT            | CONCENTRATION (mg/L) |
|------------------------|----------------------|
| Iron (total)           | 20                   |
| Total Suspended Solids | 37                   |

# Section 304.205 John Deere Foundry Discharges (Repealed)

CONSTITUENT

(Source: Repealed at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.206 Alton Water Company Treatment Plant Discharges

This Section applies to the existing 18.3 million gallons per day potable drinking water treatment plant owned by the Alton Water Company, which is located at, and discharges into, river mile 204.4 on the Mississippi River. These discharges are not subject to the effluent standards for total suspended solids and total iron of Section 304.124.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.207 Galesburg Sanitary District Deoxygenating Wastes Discharges

 a) The deoxygenating wastes general effluent standards of Section 304.120(c) do not apply to the Galesburg Sanitary District discharges into Cedar Creek. These discharges must meet the deoxygenating wastes general effluent standards set below:

| CONSTITUENT                                       | CONCENTRATION | (mg/L)   |
|---|---------------|----------|
| BOD <sub>5</sub> April-November<br>December-March | -             | 17<br>20 |
| Suspended Solids<br>June-January<br>February-May  | -             | 25       |

- b) The standards in subsection (a) apply if the Galesburg Sanitary District achieves:
  - by November 1, 1984, compliance with 35 Ill. Adm. Code 302.206 throughout Cedar Creek downstream of the treatment plant outfall, by effluent aeration, in-stream aeration, or other means;

- 2) by November 1, 1984, the prevention of overflows from the intercepting sewers before surcharging except when basement backups would result;
- 3) by March 1, 1984, an operational procedure for the influent pumps that prevents interceptor surcharging at flows below hydraulic capacity;
- 4) by March 1, 1984, the elimination of all downspout connections; and
- 5) by November 1, 1984, the prevention of inflow by sealing all leaking catch basins, replacing all leaking manhole lids and frames, and sealing drainage inlets.
- c) If the conditions in <u>subsection</u> (b) are not met, the deoxygenating wastes general effluent standards of Section 304.120(c) apply to the Galesburg Sanitary District discharges into Cedar Creek.

# Section 304.208 City of Lockport Treatment Plant Discharges

- a) This Section applies only to discharges from the City of Lockport's sewage treatment plant into Deep Run Creek in Will County, Illinois.
- b) The provisions of Section 304.120 do not apply to the discharges if the discharges do not exceed 20 mg/L of five day biochemical oxygen demand (BOD<sub>5</sub>) or 25 mg/L of total suspended solids.
- c) The provisions of 35 Ill. Adm. Code 302.212(b) and 35 Ill. Adm. Code 302.212(e) do not apply to the discharges if the discharges do not cause or contribute to a violation of water quality standards in the Des Plaines River or the Chicago Sanitary and Ship Canal.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.209 Wood River Station Total Suspended Solids Discharges

The limitation on the discharge of Total Suspended Solids contained in Section 304.124(a) does not apply to the discharge from the ash pond system of CTI Development LLC's Wood River Station, located in East Alton, Illinois. Instead, the concentration of Total Suspended Solids must not exceed 30 mg/L as an average of daily values for 30 consecutive days and must not exceed 50 mg/L as a maximum for any one day.

# Section 304.210 Alton Wastewater Treatment Plant Discharges

The discharge from the City of Alton's sewage treatment works outfall 001 sewer located on Wood River Creek, approximately 1,000 feet from its confluence with the Mississippi River, is not subject to Section 304.120(c). Instead, the discharge must not exceed the following limitations: 20 milligrams per liter for five-day biochemical oxygen demand (BOD<sub>5</sub>) and 25 milligrams per liter for total suspended solids. Compliance must be determined consistent with Section 304.120(e).

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.211 Discharges From Borden Chemicals and Plastics Operating Limited Partnership Into an Unnamed Tributary of Long Point Slough (Repealed)

(Source: Repealed at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.212 Sanitary District of Decatur Discharges

- a) This Section applies only to effluent discharges from the Sanitary District of Decatur's Sewage Treatment Plant into the Sangamon River, Macon County, Illinois.
- b) The provisions of Section 304.120(c) do not apply to the discharges if the discharges do not exceed 20 mg/L of five-day biochemical oxygen demand (BOD<sub>5</sub>) and 25 mg/L of total suspended solids.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.213 PDV Midwest Refining, L.L.C. Refinery Ammonia Discharge (Repealed)

(Source: Repealed at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.214 Mobil Oil Refinery Ammonia Discharge (Repealed)

(Source: Repealed at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.215 City of Tuscola Wastewater Treatment Facility Discharges

The requirements of Section 304.123(c) do not apply to the discharges from the City of Tuscola's wastewater treatment facility into Scattering Fork Creek, Douglas County, Illinois.

# Section 304.216 Newton Station Suspended Solids Discharges

The limitation on the discharge of total suspended solids (TSS) in Section 304.124(a) does not apply to the discharge from the ash pond system of Illinois Power Generation Company's Newton Station, located in Jasper County. Instead, Illinois Power Generation Company's ash pond system discharge must not exceed 30 mg/L monthly average and 50 mg/L daily composite for TSS, and 15 mg/L monthly average and 30 mg/L daily composite for non-volatile TSS. The definitions of Section 304.104(b) apply to these effluent limits.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.218 City of Pana Phosphorus Discharge

The general effluent standard for phosphorus as P in Section 304.123 does not apply to discharges from the City of Pana wastewater treatment plant. Instead these discharges must comply with an effluent limitation of 2.8 mg/L phosphorus as P as measured at the point of discharge.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.219 North Shore Water Reclamation District Phosphorus Discharges

- a) This Section applies to discharges from the North Shore Water Reclamation\_District excess flow discharge facilities at Waukegan and North Chicago into Lake Michigan;
- b) The requirements of Section 304.123(a) do not apply to the phosphorus content of the North Shore Water Reclamation District excess flow discharges from Waukegan and North Chicago into Lake Michigan. Instead, the following requirements apply to North Shore Water Reclamation District discharges into Lake Michigan:
  - 1) The North Shore Water Reclamation District must not discharge effluent into Lake Michigan from its Waukegan treatment plant until after that plant has achieved its maximum treatment flow capacity and all the Waukegan treatment plant excess flow retention reservoirs are full to capacity;
  - 2) The North Shore Water Reclamation District must not discharge effluent into Lake Michigan from its North Chicago treatment plant until after that plant has achieved its maximum treatment flow capacity, the North Chicago treatment plant excess flow

retention reservoirs are full to capacity, the maximum rate of transfer of untreated effluent to Gurnee has been achieved, the Gurnee treatment plant has achieved its maximum treatment flow capacity, and the Gurnee treatment plant excess flow retention reservoirs are full to capacity.

- c) The North Shore Water Reclamation District must increase the maximum peak treatment flow capacity of its Waukegan treatment plant to at least 44 million gallons per day before January 1, 1992;
- d) The North Shore Water Reclamation District must increase the maximum peak treatment flow capacity of its Gurnee treatment plant to 39 million gallons per day before January 1, 1989;
- e) The North Shore Water Reclamation District must increase the excess flow retention reservoir capacity at its Gurnee treatment plant to 50 million gallons before January 1, 1991;
- f) The North Shore Water Reclamation District must operate its Waukegan or North Chicago treatment plant at its maximum treatment flow capacity during any period in which less than 90 percent of the retention reservoir capacity is available to receive excess flows at the relevant treatment plant, except when the unavailability occurs during normal treatment plant or retention basin maintenance; and
- g) The North Shore Water Reclamation District must, as required under 35 Ill. Adm. Code 309.141, immediately embark on a program to monitor excess flow and water quality impact and must periodically submit the data from the monitoring to the Illinois Environmental Protection Agency (Agency).

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.220 East St. Louis Treatment Facility, Illinois-American Water Company (Repealed)

(Source: Repealed at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.221 Ringwood Drive Manufacturing Facility in McHenry County

The general effluent standards for deoxygenating wastes in Section 304.120 do not apply to discharges from the manufacturing facility located on Ringwood Drive in Ringwood, McHenry County, that discharges to an unnamed tributary of Dutch Creek. Instead, these discharges must\_comply with the following effluent limitations as measured at the point of discharge after the third lagoon and before discharge to the unnamed tributary:

| BOD <sub>5</sub> | 25 mg/L | May to September monthly average |
|------------------|---------|----------------------------------|
|                  | 35 mg/L | May to September daily maximum   |
|                  | 60 mg/L | October to April monthly average |
|                  | 70 mg/L | October to April daily maximum   |
| TSS              | 12 mg/L | monthly average                  |
|                  | 30 mg/L | daily maximum                    |

#### Section 304.222 Intermittent Discharge of TRC

The acute TRC water quality standard of 35 Ill. Adm. Code 302.208 and 302.504(a) by operation of Section 304.105 does not apply to any discharge that contains TRC solely as the result of intermittent use for antifouling purposes related to the operation of condensers and cooling systems. For this Section using chlorine or related substances measurable as TRC will be deemed to be intermittent if use is restricted to a maximum of two hours per day per condenser or cooling system unit. Discharge concentration of TRC averaged or composited over the discharge period must not exceed 0.2 mg/L and the TRC concentration must not exceed 0.5 mg/L at any time.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

#### Section 304.224 Effluent Disinfection

From March 1 through November 30, effluents discharged to the Primary Contact Recreation waters listed in 35 Ill. Adm. Code 303.220 must not exceed 400 fecal coliform colony forming units (CFU) per 100 ml if fewer than 10 samples are taken in a month. If 10 or more samples are taken in a month, fecal coliform must not exceed a 30day geometric mean of 200 CFU per 100 ml, and must not exceed 400 CFU per 100 ml in more than 10% of the samples during any 30-day period. All effluents in existence on or before February 3, 2012 must meet these standards by March 1, 2016. All new discharges must meet these standards upon the initiation of discharge.

(Source: Amended at 47 Ill. Reg. 4601, effective March 23, 2023)

#### SUBPART C: TEMPORARY EFFLUENT STANDARDS

# Section 304.301 Exception for Ammonia Nitrogen Water Quality Violations (Repealed)

(Source: Repealed at 21 Ill. Reg. 364, effective December 23, 1996)

#### Section 304.302 City of Joliet East Side Wastewater Treatment Plant (Repealed)

(Source: Repealed at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304.303 Amerock Corporation, Rockford Facility (Repealed)

(Source: Repealed at 47 Ill. Reg. 4601, effective March 23, 2023)

# Section 304. Appendix A Reference to Previous Rules (Repealed)

(Source: Repealed at 47 Ill. Reg. 4601, effective March 23, 2023)