

**CHAPTER 95. WASTEWATER TREATMENT REQUIREMENTS**

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**Authority**

The provisions of this Chapter 95 issued under section 5 of The Clean Streams Law (35 P.S. § 691.5), unless otherwise noted.

**Source**

The provisions of this Chapter 95 adopted September 2, 1971, effective September 3, 1971, 1 Pa.B. 1804; amended September 7, 1979, effective October 8, 1979, 9 Pa.B. 3051, unless otherwise noted.

**Cross References**

This chapter cited in 25 Pa. Code § 71.21 (relating to content of official plans); 25 Pa. Code § 78.60 (relating to discharge requirements); 25 Pa. Code § 78a.60 (relating to discharge requirements); 25 Pa. Code § 86.6 (relating to extraction of coal incidental to government-financed construction or government-financed reclamation projects); 25 Pa. Code § 87.102 (relating to hydrologic balance: effluent standards); 25 Pa. Code § 88.92 (relating to hydrologic balance: effluent standards); 25 Pa. Code § 88.167 (relating to hydrologic balance: effluent standards); 25 Pa. Code § 88.187 (relating to hydrologic balance: effluent standards); 25 Pa. Code § 88.292 (relating to hydrologic balance: effluent standards); 25 Pa. Code § 89.52 (relating to water quality standards, effluent limitations and best management practices); 25 Pa. Code § 90.102 (relating to hydrologic balance: water quality standards, effluent limitations and best management practices); 25 Pa. Code § 91.15 (relating to basin-wide compliance); 25 Pa. Code § 92a.11 (relating to other chapters applicable); 25 Pa. Code § 92a.12 (relating to treatment requirements); 25 Pa. Code § 92.17 (relating to other chapters applicable); 25 Pa. Code § 95.10 (relating to treatment requirements for new and expanding mass loadings of Total Dissolved Solids (TDS)); 25 Pa. Code § 105.14 (relating to review of applications); and 25 Pa. Code § 250.1 (relating to definitions); 25 Pa. Code § 250.309 (relating to MSCs for surface water); and 25 Pa. Code § 250.406 (relating to relationship to surface water quality requirements).

**§ 95.1. [Reserved].**

**Source**

The provisions of this § 95.1 amended October 3, 1980, effective October 4, 1980, 10 Pa.B. 3917; amended July 16, 1999, effective July 17, 1999, 29 Pa.B. 3720; reserved November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (263065) to (263066) and (234591).

**Notes of Decisions***Authority of Department*

This section contains no test to balance economic development against environmental harm, and the EHB appropriately concluded that the second prong of the section was designed to consider the environmental impact apart from the aspect of economic development. *Department of Environmental Resources v. Big B Mining Company, Inc.*, 554 A.2d 1002 (Pa. Cmwlth. 1989).

It was proper for the EHB to consider “need” in terms of market price and not in terms of public need. *Department of Environmental Resources v. Big B Mining Company, Inc.*, 554 A.2d 1002 (Pa. Cmwlth. 1989).

*Evidence*

Where a body of water is designated “high quality” under 25 Pa. Code § 93.9, that fact together with the provisions of subsection (b) demand that the permit holder developers and the DER be the parties responsible for justifying the permit after evidence has been presented showing the likelihood of environmental harm. *Marcon, Inc. v. Department of Environmental Resources*, 462 A.2d 969 (Pa. Cmwlth. 1983).

The nondegradation provision does not apply in the absence of evidence that a particular body of water is of better quality than the applicable water quality criteria. *Concerned Citizens for Orderly Progress v. Department of Environmental Resources*, 387 A.2d 989 (Pa. Cmwlth. 1978).

**Cross References**

This section cited in 25 Pa. Code § 89.57 (relating to treatment facility design); and 25 Pa. Code § 105.15 (relating to environmental assessment).

**§ 95.2. Effluent standards for industrial wastes.**

Industrial wastes must meet the following effluent standards:

(1) Wastes must have a pH of not less than 6 and not greater than 9, except where:

(i) The wastes are discharged to an acid stream, in which case the pH may be greater than 9.

(ii) The discharger affirmatively demonstrates, in writing, to the Department that biological respiration in the wastewater treatment system will cause the discharge to exceed the limits in this paragraph and that exceeding these limits will not result in a violation of applicable water quality standards or of the applicable treatment requirements and effluent limitations to which a discharge is subject under the Federal Act, in which case the Department may grant a variance, in writing, from the limitation set forth in this paragraph.

(2) Oil-bearing wastewaters, except those subject to paragraph (3), must comply with the following:

(i) At no time cause a film or sheen upon or discoloration of the waters of this Commonwealth or adjoining shoreline.

(ii) At no time contain more than 15 milligrams of oil per liter as a daily average value nor more than 30 milligrams of oil per liter at any time, or whatever lesser amount the Department may specify for a given discharge or

type of discharge as being necessary for the proper protection of the public interest or to meet any requirements based upon the State Act or the Federal Act, as defined in § 92.1 (relating to definitions).

(3) Petroleum marketing terminals must:

(i) Be provided with facilities to remove oil from waters, including stormwater runoff, before discharge into waters of this Commonwealth. Compliance with this paragraph constitutes compliance with paragraph (2)(i) except to the extent that the State Act or Federal Act or regulations promulgated thereunder impose a more stringent requirement.

(ii) Develop, implement and keep up to date pollution incident prevention plans as described in § 91.34 (relating to activities utilizing pollutants).

(iii) Design, maintain and utilize oil removal facilities that consist of an American Petroleum Institute (A.P.I.) listed oil separator, unless the person operating the facility can demonstrate to the Department that an alternate design is equivalent or better in removing oil from water to maintain and protect the waters of this Commonwealth, including all existing and designated uses established under Chapter 93 (relating to water quality standards).

(4) Waste may not contain more than 7 milligrams per liter of dissolved iron.

(5) When surface waters are used in the industrial plant, the quality of the effluent need not exceed the quality of the raw water supply if the source or supply would normally drain to the point of effluent discharge, unless otherwise required under the act or Federal Act or regulations promulgated thereunder.

#### Authority

The provisions of this § 95.2 issued under section 9 of the Pennsylvania Sewage Facilities Act (35 P. S. § 750.9); amended under sections 5 and 402 of The Clean Streams Law (35 P. S. §§ 691.5 and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

#### Source

The provisions of this § 95.2 amended October 3, 1980, effective October 4, 1980, 10 Pa.B. 3917; amended February 17, 1989, effective February 18, 1989, 19 Pa.B. 636; amended November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059; amended August 20, 2010, effective August 21, 2010, 40 Pa.B. 4835. Immediately preceding text appears at serial pages (344188) and (313617).

#### Cross References

This section cited in 25 Pa. Code § 92a.47 (relating to sewage permit); and 25 Pa. Code § 92a.48 (relating to industrial waste permit).

**§ 95.3. [Reserved].****Source**

The provisions of this § 95.3 reserved November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (234592) to (234593) and (228303) to (228304).

**§ 95.4. Extensions of time to achieve water quality based effluent limitations.**

(a) The Department may grant a discharger an extension of time to achieve water quality based effluent limitations imposed under Chapter 93 (relating to water quality standards) for specific pollutants, if all of the following requirements are met:

(1) The discharge was in existence on October 8, 1979, or the date on which the water quality standards applicable to the specific pollutants were originally promulgated, whichever is later.

(2) The discharger either:

(i) Has installed Best Demonstrated Technology (BDT) as defined in this section.

(ii) Has installed Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), or new source standards of performance, as applicable, established by the Administrator of the United States Environmental Protection Agency under 33 U.S.C.A. §§ 1314(b) and 1316 or their equivalent as determined by the Department and will install BDT in accordance with a schedule acceptable to the Department.

(3) The installation of BDT will not result in the discharger achieving the water quality based effluent limitations for the pollutants in question.

(4) The discharger demonstrates, to the satisfaction of the Department, additional efforts to meet the water quality based effluent limitations by:

(i) Modifying process materials or production methods; or both.

(ii) Utilizing an alternate point of wastewater discharge—including the use of land application of wastewater.

(iii) Implementing wastewater management practices such as wastewater recycling, wastewater reuse and good housekeeping.

(iv) Conducting research into the application of new or innovative wastewater treatment technologies or management practices—including carrying out pilot-plant operations of sufficient size and duration to demonstrate adequately the technical feasibility of such treatment technologies or management practices.

(b) Subsection (a) shall not apply to any of the following:

(1) New sources as defined under 33 U.S.C.A. § 1316.

(2) Toxic pollutant effluent standards or prohibitions established under 33 U.S.C.A. § 1317(a).

(3) Dischargers which have a history of noncompliance with the Clean Streams Law (35 P. S. §§ 691.1—691.1001) or the regulations promulgated thereunder, this article, or the terms and conditions of permits or Department orders issued pursuant thereto. A discharger's timely installation of BDT and the other methods set forth in subsection (a)(4) which do not result in achievement of water quality based effluent limitations, shall not be considered non-compliance for the purposes of this subsection.

(c) Requests for time extensions shall be in writing, and shall contain information sufficient to demonstrate that the requirements specified in subsection (a) have been, or will be, met.

(d) Extensions shall be for a limited period of time, not to exceed 5 years, which will be specified by the Department in permits issued under the Clean Streams Law (35 P. S. §§ 691.1—691.1001). A discharger's extension of time may be renewed, for a period of time for each extension not to exceed 5 years, if the requirements for the extension continue to be met.

(e) During the initial extension period, and subsequent extension renewal, the discharger shall submit periodic progress reports to the Department, at a frequency acceptable to the Department, but in no case less than once every year detailing its efforts to meet the water quality based effluent limitations in question.

(f) Failure by the discharger to implement any of the requirements contained in subsections (a)—(e) will result in the imposition and enforcement by the Department of the required water quality based effluent limitations.

(g) The following definition shall apply for the purpose of implementing subsections (a)—(f): *Best Demonstrated Technology (BDT)*—The combination of wastewater treatment technologies and management practices which have been demonstrated, to the satisfaction of the Department, to achieve the most effective degree of pollutant reduction applicable to the type of wastewater and pollutants in question. The determination of BDT shall be based upon the documented results of either full-scale installation and operation of treatment technologies and management practices, or investigation and pilot-plant operations carried out by the discharger. In no case shall BDT be less stringent than Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), or standards of performance for new sources for the wastewater and pollutants as determined by the Administrator of the United States Environmental Protection Agency under 33 U.S.C.A. §§ 1314(b) and 1316.

**Source**

The provisions of this § 95.4 amended February 15, 1985, effective February 16, 1985, 15 Pa.B. 544. Immediately preceding text appears at serial pages (44653) to (44654).

**§ 95.5. Treatment requirements for discharges to waters affected by abandoned mine drainage.**

(a) For wastes discharged to waters polluted by abandoned coal mine drainage, so that the applicable water quality criteria are not being met and designated water uses are not being achieved to the extent that aquatic communities are essentially excluded, and where the pollution cannot be remedied by controlling known, active discharges, the following degrees of treatment shall be provided:

(1) Sewage, as defined in The Clean Streams Law (35 P. S. §§ 691.1—691.1001), shall receive secondary treatment, as defined by this chapter.

(2) Industrial waste as defined in The Clean Streams Law (35 P. S. §§ 691.1—691.1001), shall achieve one of the following degrees of treatment, as appropriate, which are defined under 33 U.S.C.A. §§ 1314(b) and 1316(b):

(i) Best Conventional Pollutant Control Technology (BCT).

(ii) Best Available Technology Economically Achievable (BAT).

(iii) Standards of performance for new sources.

(b) A greater degree of treatment will be required to the waters where one of the following exists:

(1) The water quality of the receiving water has or is expected to improve significantly.

(2) The minimum degree of treatment required would cause pollution in downstream waters, so that designated stream uses in these downstream waters would not be achievable.

**Source**

The provisions of this § 95.5 amended February 15, 1985, effective February 16, 1985, 15 Pa.B. 544. Immediately preceding text appears at serial pages (44654) and (44655).

**§ 95.6. [Reserved].**

**Source**

The provisions of this § 95.6 amended February 15, 1985, effective February 16, 1985, 15 Pa.B. 544; reserved November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (228306) and (266235).

**§ 95.7. [Reserved].**

**Source**

The provisions of this § 95.7 reserved November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial page (266235).

**§ 95.8. [Reserved].**

**Source**

The provisions of this § 95.8 reserved November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (266235) to (266236).

§ 95.9. [Reserved].

Source

The provisions of this § 95.9 added February 15, 1985, effective February 16, 1985, 15 Pa.B. 544; reserved November 17, 2000, effective November 18, 2000, 30 Pa.B. 6059. Immediately preceding text appears at serial pages (266236) to (228309).

Notes of Decisions

Regulations removing specific numeric phosphorus content limits in favor of evaluation by a general model must be challenged on a case-by-case basis by individual phosphorus discharges; said challenges do not cause direct and immediate harm to a petitioner and are deemed more efficient than judicial speculation as to how DER will implement amended regulations. *Neshaminy Water Resources Authority v. Department of Environmental Resources*, 513 A.2d 979 (Pa. 1986).

Petition filed under Commonwealth Court's original jurisdiction, challenging new regulations which removed specific numeric phosphorus content limits in favor of evaluation by a general model, was premature since petitioner would "not suffer direct and immediate harm which would render the statutory administrative review, process inadequate." *Neshaminy Water Resources Authority v. Department of Environmental Resources*, 513 A.2d 979 (Pa. 1986).

Regulations contemplate that DER will evaluate the degree to which phosphorus contributes to the impairment designed uses on a case-by-case basis and may impose more stringent limitations where necessary. *Neshaminy Water Resources Authority v. Department of Environmental Resources*, 513 A.2d 979 (Pa. 1986).

§ 95.10. Treatment requirements for new and expanding mass loadings of Total Dissolved Solids (TDS).

(a) The following are not considered new and expanding mass loadings of TDS and are exempt from the treatment requirements in this section:

(1) Maximum daily discharge loads of TDS or specific conductivity levels that were authorized by the Department prior to August 21, 2010. These discharge loads will be considered existing mass loadings by the Department.

(i) Relocation or combination of existing discharge points of existing mass loadings of TDS do not constitute a new or expanding mass loading unless total mass loadings are increased.

(ii) Existing publicly owned treatment works (POTW) as defined in § 92.1 (relating to definitions) and industrial waste treatment facilities authorized prior to August 21, 2010, under permits authorizing the acceptance, treatment and discharge of TDS do not constitute a new or expanding mass loading unless total mass loadings accepted, treated and discharged are to be increased. Only the net increase in TDS mass loadings from these facilities will be considered a new and expanding mass loading of TDS.

(2) Facilities treating postmining pollutional discharges from abandoned mine sites. For purposes of this section, abandoned mine sites include all lands and water eligible for reclamation or drainage abatement or treatment expenditures under section 402(g)(4) or section 404 of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C.A. §§ 1232(g)(4) and 1234).

- (3) Surface mining activities with preexisting discharges subject to Chapter 87, Subchapter F or Chapter 88, Subchapter G (relating to surface coal mines: minimum requirements for remining areas with polluttional discharges; and anthracite surface mining activities and anthracite bank removal and reclamation activities: minimum requirements for remining areas with polluttional discharges) and preexisting discharges subject to Chapter 90, Subchapter F (relating to coal refuse disposal activities on areas with preexisting polluttional discharges).
- (4) Discharges from active surface coal mining operations with an open pit dimension of less than 450,000 square feet exposed at any time.
- (5) Discharges from erosion and sediment control facilities used at surface mining activities as defined in § 86.1 (relating to definitions).
- (6) Existing mine drainage directed to a mine pool where the mine pool is being treated in accordance with applicable requirements in Chapters 91—96.
- (7) New and expanding discharge loadings of TDS equal to or less than 5,000 pounds per day, measured as an average daily discharge over the course of a calendar year, otherwise known as the annual average daily load.
- (8) Discharges of wastewater produced from industrial subcategories with applicable effluent limit guidelines for TDS, chlorides or sulfates established as best available technology economically achievable (BAT), best conventional pollutant control technology (BCT) or new source standards of performance, by the administrator of the EPA under sections 303(b) and 306 of the Federal Act (33 U.S.C.A. §§ 1314(b) and 1316).
- (b) Operations with wastewater resulting from fracturing, production, field exploration, drilling or completion of natural gas wells shall comply with the following requirements:
- (1) Except as provided in paragraph (3), there may be no discharge of wastewater into waters of this Commonwealth from any source associated with fracturing, production, field exploration, drilling or well completion of natural gas wells.
  - (2) A wastewater source reduction strategy shall be developed by the well operator by August 22, 2011, and submitted to the Department upon request. The source reduction strategy must identify the methods and procedures the operator shall use to maximize the recycling and reuse of flow back or production fluid either to fracture other natural gas wells, or for other beneficial uses approved under Chapter 287 (relating to residual waste management—general provisions). The strategy shall be updated annually and include, at a minimum, the following information:
    - (i) A complete characterization of the operator's wastewater stream including chemical analyses, TDS concentrations and monthly generation rate of flowback and production fluid at each natural gas well.



- (ii) A description and evaluation of potential wastewater source reduction options through recycling, reuse or other beneficial uses.
  - (iii) The rationale for selecting the source reduction methods to be employed by the operator.
  - (iv) Quantification of the flowback and production fluid generated by each well which is recycled or reused either to fracture other natural gas wells or for other approved beneficial uses.
- (3) New and expanding treated discharges of wastewater resulting from fracturing, production, field exploration, drilling or well completion of natural gas wells may be authorized by the Department under Chapter 92 (relating to National Pollutant Discharge Elimination System permitting, monitoring and compliance) provided that the following requirements are met:
- (i) Discharges may be authorized only from centralized waste treatment facilities (CWT), as defined in 40 CFR 437.2(c) (relating to general definitions).
  - (ii) Discharges may not be authorized from a POTW, as defined in § 92.1, unless treatment at a CWT meeting all of the requirements of this chapter precedes treatment by the POTW.
  - (iii) The discharge may not contain more than 500 mg/L of TDS as a monthly average.
  - (iv) The discharge may not contain more than 250 mg/L of total chlorides as a monthly average.
  - (v) The discharge may not contain more than 10 mg/L of total barium as a monthly average.
  - (vi) The discharge may not contain more than 10 mg/L of total strontium as a monthly average.
  - (vii) The discharge complies with the performance standards in 40 CFR 437.45(b) (relating to new source performance standards (NSPS)).
- (4) Deep well injection of wastewater resulting from fracturing, production, field exploration, drilling or well completion of natural gas wells shall comply with § 78.18 (relating to disposal and enhanced recovery well permits).
- (c) New and expanding mass loadings of TDS not addressed in subsections (a) and (b) may not contain more than 2,000 mg/L of TDS as a monthly average, unless a variance is approved by the Department under this section. For purposes of this subsection, any net increase in existing TDS loadings authorized after August 21, 2010, will be considered a new and expanding mass loading of TDS.
- (d) A request for a variance to subsection (c) shall be submitted to the Department and be accompanied by the following information:
- (1) An analysis of the applicant's existing discharge loads of TDS, and the projected new discharge loads associated with the proposed new and expanding mass loadings of TDS.
  - (2) An analysis of the applicant's existing treatment facilities and the ability of those facilities to meet the requirement in subsection (c).

(3) An analysis of upgrades necessary to bring the applicant's existing facility into compliance with subsection (c) and the estimated costs associated with the upgrades.

(4) An analysis of the receiving stream's water quality for TDS at, or upstream from, the proposed point of discharge.

(e) A request for a variance to subsection (c) will be subject to the public notice requirements for permit applications in § 92.61 (relating to public notice of permit application and public hearing).

(f) A variance to subsection (c) may be approved by the Department only under the following conditions:

(1) A watershed analysis conducted by the Department determines that a variance will not result in a reduction of available assimilative capacity for TDS to less than 25% of the total available assimilative capacity at the next downstream point of water quality standards compliance. Available assimilative capacity will be calculated using design flow conditions under § 96.4(g) (relating to TMDLs and WQBELs).

(2) The resulting instream concentration of TDS at the point of discharge from the new or expanding loading will not violate water quality standards in Chapter 93 (relating to water quality standards).

(g) Coal-fired electric steam generating units subject to effluent limitations in 40 CFR Part 423 (relating to steam electric power generating point source category), including TDS effluent limitations created by the EPA rulemaking on effluent limitations scheduled for completion by March 2014 (Docket No. EPA-HQ-OW-2009-0819), must comply with subsection (c) by December 31, 2018, unless exempted by subsection (a).

#### **Authority**

The provisions of this § 95.10 issued under sections 5 and 402 of The Clean Streams Law (35 P.S. §§ 691.5 and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20), unless otherwise noted.

#### **Source**

The provisions of this § 95.10 adopted August 20, 2010, effective August 21, 2010, 40 Pa.B. 4835.

#### **Cross References**

This section cited in 25 Pa. Code § 78a.69 (relating to water management plans).

[Next page is 96-1.]