## Annex A

## TITLE 25. ENVIRONMENTAL PROTECTION PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION Subpart C. PROTECTION OF NATURAL RESOURCES ARTICLE II. WATER RESOURCES

CHAPTER 95. WASTEWATER TREATMENT REQUIREMENTS

Sec.

- 95.1 [Reserved]
- 95.2. [Quality standards and oil-bearing wastewaters.] <u>Effluent Standards for Industrial</u>
  Wastes.

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95.10. [Effluent standards for new discharges of wastewaters containing high Total

Dissolved Solids (TDS) concentrations.] TREATMENT REQUIREMENTS FOR

NEW AND EXPANDING MASS LOADINGS OF TOTAL DISSOLVED SOLIDS

(TDS).

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§ 95.2. [Quality standards and oil-bearing wastewaters.] <u>Effluent Standards for Industrial</u>

<u>Wastes.</u>

Industrial [waste shall] wastes must meet the following [quality] effluent standards:

- (1) [There may be no discharge of wastes which are acid.
- (2)] Wastes [shall] must have a pH of not less than 6 and not greater than 9, except where:

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[(3)] (2) Oil-bearing wastewaters, except those subject to paragraph [(4), shall] (3), must comply with [all of] the following:

\* \* \* \* \*

[(4)] (3) Petroleum marketing terminals [shall] <u>must</u>:

\* \* \* \* \*

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

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[(6)] (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 [State act] act or Federal Act or regulations promulgated thereunder.

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(Editor's Note: Section 95 is new and printed in regular print to enhance readability).

95.10 [Effluent standards for new discharges of wastewaters containing high Total

Dissolved Solids (TDS) concentrations.] TREATMENT REQUIREMENTS FOR NEW

AND EXPANDING MASS LOADINGS OF TOTAL DISSOLVED SOLIDS (TDS).

(a) [For the purpose of implementing this section, a new discharge of High-TDS wastewater is a discharge that did not exist on April 1, 2009, and includes a TDS concentration that exceeds 2,000 mg/L or a TDS loading that exceeds 100,000 pounds per day. The term "new discharge" includes an additional discharge, an expanded discharge or an increased discharge from a facility in existence prior to April 1, 2009.] THE

FOLLOWING ARE NOT CONSIDERED NEW AND EXPANDING MASS LOADINGS

OF TDS AND ARE EXEMPT FROM THE TREATMENT REQUIREMENTS IN THIS

SECTION:

- (1) DISCHARGE LOADS OF TDS THAT WERE AUTHORIZED BY THE
  DEPARTMENT AS OF [INSERT EFFECTIVE DATE OF REGULATION]. SUCH
  DISCHARGE LOADS SHALL BE CONSIDERED EXISTING MASS LOADINGS BY
  THE DEPARTMENT. 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.
- (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 AND DRAINAGE ABATEMENT EXPENDITURES PURSUANT TO
  30 U.S.C. §§ 1232(G)(4) OR 1234.
- SUBJECT TO REQUIREMENTS IN 25 PA. CODE CH. 87, SUBCHAPTER F

  (RELATING TO SURFACE COAL MINES: MINIMUM REQUIREMENTS FOR
  REMINING AREAS WITH POLLUTIONAL DISCHARGES) OR 25 PA. CODE CH. 88,
  SUBCHAPTER G (RELATING TO ANTHRACITE SURFACE MINING ACTIVITIES
  AND ANTHRACITE BANK REMOVAL AND RECLAMATION ACTIVITIES:
  MINIMUM REQUIREMENTS FOR REMINING AREAS WITH POLLUTIONAL
  DISCHARGES).

- (4) DISCHARGE LOADINGS OF TDS EQUAL TO OR LESS THAN 5,000 POUNDS PER DAY.
- (5) 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. §§ 1314(B) AND 1316).
- (b) [Unless specifically exempted under paragraph (6), all new discharges of wastewater with High-TDS must comply with the following:
  - (1) Section 95.2 (relating to effluent standards for industrial wastes).
  - (2) The discharge may not contain more than 500 mg/L of TDS as a monthly average.
  - (3) The discharge may not contain more than 250 mg/L of total chlorides as a monthly average.
  - (4) The discharge may not contain more than 250 mg/L of total sulfates as a monthly average.
  - (5) In addition to paragraphs (1) through (4), discharges to groundwater, including land application and discharges to existing mine pools, must comply with § § 91.51 and 91.52 (relating to underground disposal).
  - (6) 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) are exempt from the effluent standards in this section.]

OPERATIONS WITH WASTEWATER RESULTING FROM FRACTURING,

PRODUCTION, FIELD EXPLORATION, DRILLING OR COMPLETION OF NATURAL GAS WELLS MUST COMPLY WITH THE FOLLOWING REQUIREMENTS:

- (1) EXCEPT AS PROVIDED IN SUBSECTION (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) FLOW BACK OR PRODUCTION FLUID ORIGINATING FROM
  NATURAL GAS WELLS WHICH CONTAINS CONCENTRATIONS OF TDS LESS
  THAN 30,000 MG/L MUST BE REUSED TO FRACTURE OTHER NATURAL GAS
  WELLS, UNLESS A WRITTEN WAIVER OF THIS REUSE REQUIREMENT IS
  OBTAINED FROM THE DEPARTMENT.
- (I) A REQUEST FOR A WAIVER MUST DEMONSTRATE

  THAT COMPLIANCE WITH THE REUSE REQUIREMENT IN SUBSECTION (2)

  IS NOT TECHNOLOGICALLY OR ECONOMICALLY FEASIBLE.
- (II) ALL FLOWBACK AND PRODUCTION FLUID SUBJECT

  TO A WAIVER OF THE REUSE REQUIREMENT MUST OTHERWISE MEET

  ALL WASTEWATER TREATMENT REQUIREMENTS IN THIS SECTION.

- (3) 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 25 PA. CODE CH. 92 (RELATING TO NATIONAL
  POLLUTION DISCHARGE ELIMINATION SYSTEM PERMITTING,
  MONITORING AND COMPLIANCE) PROVIDED THAT ALL OF THE
  FOLLOWING REQUIREMENTS ARE MET:
- (I) SUCH DISCHARGES MAY BE AUTHORIZED ONLY

  FROM CENTRALIZED WASTE TREATMENT FACILITIES (CWT), AS DEFINED

  IN 40 CFR § 437.2(C);
- (II) SUCH DISCHARGES MAY NOT BE AUTHORIZED FROM
  A POTW, AS DEFINED IN 25 PA. CODE § 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 TOTAL DISSOLVED SOLIDS 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 MUST COMPLY WITH 25 PA.
  CODE § 78.18 (RELATING TO DISPOSAL AND ENHANCED RECOVERY WELL
  PERMITS).
- (c) [New discharges of wastewaters resulting from fracturing, production, field exploration, drilling or completion of oil and gas wells must comply with the following provisions, in addition to the provisions in subsection (b):
  - (1) There may be no discharge of wastewater into waters of this Commonwealth from any direct source or site of fracturing, production, field exploration, drilling, or well completion, (that is, produced water, drilling muds, drill cuttings, and produced sand).

    (2) Treated discharges of wastewater generated from fracturing, production, field exploration, drilling, or well completion may be authorized by the Department under Chapter 92 (relating to National Pollutant Discharge Elimination System Permitting, Monitoring and Compliance). The discharges shall be authorized only from centralized waste treatment (CWT) facilities and approved Publicly Owned Treatment Works (POTWs).

(3) The discharge may not contain more than 10 mg/L of total barium as a monthly average.

- (4) The discharge may not contain more than 10 mg/L of total strontium as a monthly average.
- (5) Where a discharge from a CWT facility is proposed, the discharge must comply with the performance standards in 40 CFR 437.34 (relating to new source performance standards (NSPS)), in addition to complying with paragraphs (2—4).
- (6) Where a discharge through a POTW is proposed, in addition to compliance with the requirements of paragraphs (2)—(4) the following apply:
  - (i) <u>Pretreatment shall be provided and comply with the performance standards</u> <u>found in 40 CFR 437.36 (relating to pretreatment standards for new sources).</u>
  - (ii) The POTW shall develop and implement a Federal pretreatment

    program meeting the applicable standards found in 40 CFR 403.8 (relating to

    pretreatment program requirements: development and implementation by

    POTW).]

ALL NEW AND EXPANDING MASS LOADINGS OF TDS NOT ADDRESSED IN

SUBSECTIONS (A) AND (B) MAY NOT CONTAIN MORE THAN 2,000 MG/L OF

TOTAL DISSOLVED SOLIDS AS A MONTHLY AVERAGE, UNLESS A VARIANCE IS

APPROVED BY THE DEPARTMENT PURSUANT TO THIS SECTION.

(d) [Any wastewater treatment requirement established under this chapter does not apply if an NPDES permit limitation established under Chapter 92 provides a more stringent effluent limitation requirement than would be provided by application of this ehapter.] A REQUEST FOR A VARIANCE TO THE REQUIREMENT IN

SUBSECTION (C) MUST BE SUBMITTED TO THE DEPARTMENT IN

- ACCORDANCE WITH 25 PA. CODE § 92.21 (RELATED TO APPLICATIONS) AND BE ACCOMPANIED BY THE FOLLOWING:
- (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 THE

    REQUIREMENT IN SUBSECTION (C) AND THE ESTIMATED COSTS

    ASSOCIATED WITH SUCH UPGRADES, AND
  - (4) AN ANALYSIS OF THE RECEIVING STREAM'S WATER QUALITY
    FOR TDS AT, OR UPSTREAM FROM, THE PROPOSED POINT OF DISCHARGE.
- (E) A VARIANCE TO THE REQUIREMENTS IN SUBSECTION (C) MAY BE

  APPROVED BY THE DEPARTMENT ONLY UNDER THE FOLLOWING

  CONDITIONS:
- (1) A WATERSHED ANALYSIS CONDUCTED BY THE DEPARTMENT

  DETERMINES THAT SUCH A VARIANCE WILL NOT RESULT IN A REDUCTION

  OF AVAILABLE ASSIMILATIVE CAPACITY FOR TDS TO LESS THAN TWENTY

  FIVE PERCENT (25%) OF THE TOTAL AVAILABLE ASSIMILATIVE CAPACITY

  AT THE NEXT DOWNSTREAM POINT OF WATER QUALITY STANDARDS

  COMPLIANCE. AVAILABLE ASSIMILATIVE CAPACITY SHALL BE

CALCULATED USING DESIGN FLOW CONDITIONS PURSUANT TO 25 PA. CODE §
96.4(G) (RELATED TO WATER QUALITY STANDARDS IMPLEMENTATION); AND

(2) THE RESULTING INSTREAM CONCENTRATION OF TDS AT THE
POINT OF DISCHARGE FROM THE NEW OR EXPANDING LOADING WILL NOT
EXCEED THE LESSER OF 500 MG/L OR 133% OF THE NATURAL STREAM
QUALITY AS DETERMINED BY THE DEPARTMENT USING AMBIENT WATER
QUALITY NETWORK STATION DATA.

