

§ 439.50

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Regulated parameter	Pretreatment standards ¹	
	Maximum daily discharge	Average monthly discharge must not exceed
5 Methylene chloride	3.0	0.7

¹ Mg/L (ppm).

[63 FR 50436, Sept. 21, 1998; 64 FR 48104, Sept. 2, 1999]

Subpart E—Research Subcategory

§ 439.50 Applicability.

This subpart applies to discharges of process wastewater resulting from pharmaceutical research.

[63 FR 50436, Sept. 21, 1998]

§ 439.51 Specialized definitions.

For the purpose of this subpart, the term product means products or services resulting from research and product development activities.

[63 FR 50436, Sept. 21, 1998]

§ 439.52 Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BPT:

(a) The average monthly effluent limitation for BOD₅, expressed as mass loading (pounds, kilograms) per day, must reflect not less than 90 percent reduction in the long-term average daily BOD₅ load of the raw (untreated) process wastewater, multiplied by a variability factor of 3.0. No facility shall be required to attain a limitation for BOD₅ that is less than the equivalent of 45 mg/L.

(b) The average monthly effluent limitation for COD, expressed as mass loading (pounds, kilograms) per day, must reflect not less than 74 percent reduction in the long-term average

daily COD load of the raw (untreated) process wastewater, multiplied by a variability factor of 2.2. No facility shall be required to attain a limitation for COD that is less than the equivalent of 220 mg/L.

(c) The long-term average daily BOD₅ or COD mass loading of the raw process wastewater (i.e., the base number to which the percent reduction is applied) is defined as the average daily BOD₅ or COD load during any calendar month, over 12 consecutive months within the most recent 36 months.

(1) To assure equity in the determination of NPDES permit limitations regulating discharges subject to this subpart, calculation of the long-term average daily BOD₅ or COD load in the influent to the wastewater treatment system must exclude any portion of the load associated with solvents, except for residual amounts of solvents remaining after the practices of recovery and/or separate disposal or reuse. Residual amounts of these substances may be included in the calculation of the average influent BOD₅ or COD loading.

(2) The practices of recovery, and/or separate disposal or reuse include: recovery of solvents from wastestreams; and incineration of concentrated solvent wastestreams (including tar still bottoms). This part does not prohibit the inclusion of such wastes in raw waste loads in fact, nor does it mandate any specific practice, but rather describes the rationale for determining NPDES permit limitations. The effluent limitation for BOD₅ or COD may be achieved by any of several, or a combination, of these practices.

(d) The average monthly effluent limitation for TSS, expressed as mass loading (pounds, kilograms) per day, must be calculated as 1.7 times the BOD₅ limitation determined in paragraph (a) of this section.

(e) The pH must be within the range 6.0 to 9.0.

[63 FR 50436, Sept. 21, 1998]

APPENDIX A TO PART 439—TABLES

TABLE 1.—SURROGATE PARAMETERS FOR DIRECT DISCHARGERS
[Utilizing biological treatment technology]

Regulated parameters	Treatability class
Amyl alcohol	Alcohols.
Ethanol ¹	
Isopropanol ¹	
Methanol ¹	
Phenol	Aldehydes.
Isobutyraldehyde ¹	
n-Heptane ¹	
n-Hexane ¹	Alkanes.
Diethylamine ¹	
Triethylamine	Amines.
Benzene	Aromatics.
Toluene ¹	
Xylenes ¹	
Chlorobenzene	
o-Dichlorobenzene	Chlorinated Alkanes.
Chloroform ¹	
Methylene chloride ¹	
1,2-Dichloroethane ¹	Esters.
Ethyl acetate ¹	
Isopropyl acetate	
n-Amyl acetate	
n-Butyl acetate	
Methyl formate	Ethers.
Tetrahydrofuran ¹	
Isopropyl ether	Ketones.
Acetone ¹	
4-Methyl-2-pentanone (MIBK)	Miscellaneous. ²
Ammonia (aqueous)	
Acetonitrile	
Methyl Cellosolve	
Dimethyl Sulfoxide	

¹ These parameters may be used as a surrogate to represent other parameters in the same treatability class.

² Surrogates have not been identified for the "Miscellaneous" treatability class.

TABLE 2.—SURROGATE PARAMETERS FOR INDIRECT DISCHARGERS
[Utilizing steam stripping treatment technology]

Regulated parameters	Treatability class
Benzene	High strippability.
Toluene ¹	
Xylenes	
n-Heptane	
nHexane	
Chloroform ¹	
Methylene chloride ¹	
Chlorobenzene	
Methyl cellosolve	
Ammonia (aqueous) ¹	
Diethyl amine	
Triethyl amine	
Acetone ¹	
4-Methyl-2-pentanone (MIBK)	
n-Amyl acetate	
n-Butyl acetate ¹	
Ethyl acetate	
Isopropyl acetate	
Methyl formate	
Isopropyl ether	
Tetrahydrofuran ¹	
1,2-Dichloroethane	
o-Dichlorobenzene	

¹ These paramaters may be used as a surrogate to represent other parameters in the same treatability class.

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[63 FR 50437, Sept. 21, 1998; 64 FR 10393, Mar. 4, 1999]

PART 440—ORE MINING AND DRESSING POINT SOURCE CATEGORY

Subpart A—Iron Ore Subcategory

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- 440.10 Applicability; description of the iron ore subcategory.
- 440.11 [Reserved]
- 440.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 440.13 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
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Subpart B—Aluminum Ore Subcategory

- 440.20 Applicability; description of the aluminum ore subcategory.
- 440.21 [Reserved]
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- 440.23 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
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Subpart C—Uranium, Radium, and Vanadium Ores Subcategory

- 440.30 Applicability; description of the uranium, radium and vanadium ores subcategory.
- 440.31 [Reserved]
- 440.32 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

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- 440.33 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 440.34 New source performance standards (NSPS).
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Subpart D—Mercury Ore Subcategory

- 440.40 Applicability; description of the mercury ore subcategory.
- 440.41 [Reserved]
- 440.42 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 440.43 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
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Subpart E—Titanium Ore Subcategory

- 440.50 Applicability; description of the titanium ore subcategory.
- 440.51 [Reserved]
- 440.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 440.53 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
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Subpart F—Tungsten Ore Subcategory

- 440.60 Applicability; description of the tungsten ore subcategory.
- 440.61 [Reserved]
- 440.62 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable