

**Environmental Protection Agency**

**§ 439.16**

**EFFLUENT LIMITATIONS (BAT)—Continued**

Regulated parameter	Maximum daily <sup>1</sup>	Maximum monthly average <sup>1</sup>
Ethanol .....	10.0	4.1
Isopropanol .....	3.9	1.6
Methanol .....	10.0	4.1
Methyl Cellosolve .....	100.0	40.6
Dimethyl sulfoxide .....	91.5	37.5
Triethyl amine .....	250.0	102.0
Phenol .....	0.05	0.02
Benzene .....	0.05	0.02
Toluene .....	0.06	0.02
Xylenes .....	0.03	0.01
n-Hexane .....	0.03	0.02
n-Heptane .....	0.05	0.02
Methylene chloride .....	0.9	0.3
Chloroform .....	0.02	0.13
1,2-dichloroethane .....	0.4	0.1
Chlorobenzene .....	0.15	0.06
o-Dichlorobenzene .....	0.15	0.06
Tetrahydrofuran .....	8.4	2.6
Isopropyl ether .....	8.4	2.6
Diethyl amine .....	250.0	102.0
Acetonitrile .....	25.0	10.2

<sup>1</sup> mg/L (ppm).

(b) The limitations for COD are the same as specified in § 439.12(c) and (d).

(c) The limitations for cyanide are the same as specified in § 439.12(e), (f) and (g).

[68 FR 12271, Mar. 13, 2003]

**§ 439.15 New source performance standards (NSPS).**

(a) Any new source subject to this subpart must achieve the following standards:

**PERFORMANCE STANDARDS (NSPS)**

Regulated parameter	Maximum daily <sup>1</sup>	Maximum monthly average <sup>1</sup>
BOD <sub>5</sub> .....	267	111
TSS .....	472	166
COD .....	1675	856
Ammonia (as N) .....	84.1	29.4
Acetone .....	0.5	0.2
4-methyl-2-pentanone .....	0.5	0.2
Isobutyraldehyde .....	1.2	0.5
n-Amyl acetate .....	1.3	0.5
n-Butyl acetate .....	1.3	0.5
Ethyl acetate .....	1.3	0.5
Isopropyl acetate .....	1.3	0.5
Methyl formate .....	1.3	0.5
Amyl alcohol .....	10.0	4.1
Ethanol .....	10.0	4.1
Isopropanol .....	3.9	1.6
Methanol .....	10.0	4.1
Methyl Cellosolve .....	100.0	40.6
Dimethyl sulfoxide .....	91.5	37.5
Triethyl amine .....	250.0	102.0
Phenol .....	0.05	0.02
Benzene .....	0.05	0.02
Toluene .....	0.06	0.02
Xylenes .....	0.03	0.01
n-Hexane .....	0.03	0.02

**PERFORMANCE STANDARDS (NSPS)—Continued**

Regulated parameter	Maximum daily <sup>1</sup>	Maximum monthly average <sup>1</sup>
n-Heptane .....	0.05	0.02
Methylene chloride .....	0.9	0.3
Chloroform .....	0.02	0.13
1,2-dichloroethane .....	0.4	0.1
Chlorobenzene .....	0.15	0.06
o-Dichlorobenzene .....	0.15	0.06
Tetrahydrofuran .....	8.4	2.6
Isopropyl ether .....	8.4	2.6
Diethyl amine .....	250.0	102.0
Acetonitrile .....	25.0	10.2

<sup>1</sup> mg/L (ppm)

(b) The limitations for cyanide are the same as specified in § 439.12(e), (f) and (g).

(c) Any new source subject to the provisions of this section that commenced discharging after November 21, 1988, and prior to November 20, 1998, must continue to achieve the standards specified for this section in the 1988 edition of 40 CFR part 439, until the expiration of the applicable time period specified in 40 CFR 122.29(d)(1), after which the source must achieve the standards specified in §§ 439.13 and 439.14.

[68 FR 12272, Mar. 13, 2003]

**§ 439.16 Pretreatment standards for existing sources (PSES).**

(a) Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart must continue achieving the standards for cyanide specified in paragraph (c) of this section and must achieve the following standards by September 21, 2001:

**PRETREATMENT STANDARDS (PSES)**

Regulated parameter	Maximum daily <sup>1</sup>	Maximum monthly average <sup>1</sup>
Ammonia (as N) <sup>2</sup> .....	84.1	29.4
Acetone .....	20.7	8.2
4-methyl-2-pentanone .....	20.7	8.2
Isobutyraldehyde .....	20.7	8.2
n-Amyl acetate .....	20.7	8.2
n-Butyl acetate .....	20.7	8.2
Ethyl acetate .....	20.7	8.2
Isopropyl acetate .....	20.7	8.2
Methyl formate .....	20.7	8.2
Isopropyl ether .....	20.7	8.2
Tetrahydrofuran .....	9.2	3.4
Benzene .....	3.0	0.7
Toluene .....	0.3	0.2
Xylenes .....	3.0	0.7
n-Heptane .....	3.0	0.7
n-Hexane .....	3.0	0.7

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**PRETREATMENT STANDARDS (PSES)—  
Continued**

Regulated parameter	Maximum daily <sup>1</sup>	Maximum monthly average <sup>1</sup>
Methylene chloride .....	3.0	0.7
Chloroform .....	0.1	0.03
1,2-dichloroethane .....	20.7	8.2
Chlorobenzene .....	3.0	0.7
o-Dichlorobenzene .....	20.7	8.2
Diethyl amine .....	255.0	100.0
Triethyl amine .....	255.0	100.0

<sup>1</sup> mg/L (ppm)  
<sup>2</sup> Not applicable to sources that discharge to a POTW with nitrification capability.

(b) Sources that discharge to a POTW with nitrification capability (defined at § 439.1(i)) are not required to achieve the pretreatment standard for ammonia (as N).

(c) The limitations for cyanide are the same as specified in § 439.12(e), (f) and (g).

[68 FR 12272, Mar. 13, 2003]

**§ 439.17 Pretreatment standards for new sources (PSNS).**

Except as provided in 40 CFR 403.7, any new source subject to this subpart must achieve the same standards as specified in § 439.16.

(a) Sources that discharge to a POTW with nitrification capability (defined at § 439.2(i)) are not required to achieve the pretreatment standard for ammonia (as N).

(b) The pretreatment standards for cyanide are as follows:

Regulated parameter	Pretreatment standards <sup>1</sup>	
	Maximum daily discharge	Average monthly discharge must not exceed
Cyanide (T) .....	33.5	9.4

<sup>1</sup> Mg/L (ppm).

(c) When monitoring for cyanide at the end-of-pipe is impractical because of dilution by other process wastewaters, compliance with the cyanide standards in § 439.17(b) must be demonstrated at in-plant monitoring points pursuant to 40 CFR 403.6(e)(2) and (4). Under the same provisions, the permitting authority may impose monitoring requirements on internal wastestreams for any other parameter(s) regulated by this section.

(d) Compliance with the standards in paragraph (b) or (c) of this section may

be achieved by certifying to the permit issuing authority that a facility's manufacturing processes neither use nor generate cyanide.

[63 FR 50429, Sept. 21, 1998; 64 FR 10393, Mar. 4, 1999; 64 FR 48104, Sept. 2, 1999, as amended at 68 FR 34832, June 11, 2003]

**Subpart B—Extraction Products**

**§ 439.20 Applicability.**

This subpart applies to discharges of process wastewater resulting from the manufacture of pharmaceutical products by extraction.

[63 FR 50430, Sept. 21, 1998]

**§ 439.21 Special definitions.**

For the purpose of this subpart:

(a) *Extraction* means process operations that derive pharmaceutically active ingredients from natural sources such as plant roots and leaves, animal glands, and parasitic fungi by chemical and physical extraction.

(b) *Product* means any substance manufactured by an extraction process, including blood fractions, vaccines, serums, animal bile derivatives, endocrine products and medicinal products such as alkaloids that are isolated from botanical drugs and herbs.

[68 FR 12272, Mar. 13, 2003]

**§ 439.22 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 limitation for BOD<sub>5</sub> is the same as specified in § 439.12(a). No facility shall be required to attain a monthly average limitation for BOD<sub>5</sub> that is less than the equivalent of 45 mg/L.

(1) The long-term average daily BOD<sub>5</sub> load of the raw process wastewater (i.e., the base number to which the percent reduction is applied) is defined as the average daily BOD<sub>5</sub> load during any calendar month, over 12 consecutive months within the most recent 36 months, and must include one or more