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available technology economically achievable (BAT).

419.54 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).

419.55 Pretreatment standards for existing sources (PSES).

419.56 Standards of performance for new sources (NSPS).

419.57 Pretreatment standards for new sources (PSNS).

APPENDIX A TO PART 419—PROCESSES INCLUDED IN THE DETERMINATION OF BAT EFFLUENT LIMITATIONS FOR TOTAL CHROMIUM, HEXAVALENT CHROMIUM, AND PHENOLIC COMPOUNDS (4AAP)

AUTHORITY: Secs. 301, 304 (b), (c), (e), and (g), 306 (b) and (c), 307 (b) and (c), and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972 as amended by the Clean Water Act of 1977) (the "Act"); 33 U.S.C. 1311, 1314 (b), (c), (e), and (g), 1316 (b) and (c), 1317 (b) and (c), and 1361; 86 Stat. 816, Pub. L. 92-500; 91 Stat. 1567, Pub. L. 95-217.

SOURCE: 47 FR 46446, Oct. 18, 1982, unless otherwise noted.

Subpart A—Topping Subcategory

§419.10 Applicability; description of the topping subcategory.

The provisions of this subpart apply to discharges from any facility that produces petroleum products by the use of topping and catalytic reforming, whether or not the facility includes any other process in addition to topping and catalytic reforming. The provisions of this subpart do not apply to facilities that include thermal processes (coking, vis-breaking, etc.) or catalytic cracking.

§419.11 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations, and methods of analysis set forth in part 401 of this chapter shall apply to this subpart.

(b) The term *runoff* shall mean the flow of storm water resulting from precipitation coming into contact with petroleum refinery property.

(c) The term *ballast* shall mean the flow of waters, from a ship, that is treated along with refinery

wastewaters in the main treatment system.

(d) The term *feedstock* shall mean the crude oil and natural gas liquids fed to the topping units.

(e) The term *once-through cooling water* shall mean those waters discharged that are used for the purpose of heat removal and that do not come into direct contact with any raw material, intermediate, or finished product.

(f) The following abbreviations shall be used: (1) Mgal means one thousand gallons; (2) Mbbl means one thousand barrels (one barrel is equivalent to 42 gallons).

(g) The term *contaminated runoff* shall mean runoff which comes into contact with any raw material, intermediate product, finished product, by-product or waste product located on petroleum refinery property.

[47 FR 46446, Oct. 18, 1982, as amended at 50 FR 28522, July 12, 1985]

§419.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

(a) 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 degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

Pollutant or pollutant property	BPT Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Metric units (kilograms per 1,000 m <sup>3</sup> of feedstock)	
BOD <sub>5</sub> .....	22.7	12.0
TSS .....	15.8	10.1
COD <sup>1</sup> .....	117.0	60.3
Oil and grease .....	6.9	3.7
Phenolic compounds .....	0.168	0.076
Ammonia as N .....	2.81	1.27
Sulfide .....	0.149	0.068
Total chromium .....	0.345	0.20
Hexavalent chromium .....	0.028	0.012
pH .....	( <sup>2</sup> )	( <sup>2</sup> )

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Pollutant or pollutant property	BPT Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	English units (pounds per 1,000 bbl of feedstock)	
BOD5 .....	8.0	4.25
TSS .....	5.6	3.6
COD <sup>1</sup> .....	41.2	21.3
Oil and grease .....	2.5	1.3
Phenolic compounds .....	0.060	0.027
Ammonia as N .....	0.99	0.45
Sulfide .....	0.053	0.024
Total chromium .....	0.122	0.071
Hexavalent chromium .....	0.01	0.0044
pH .....	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> See footnote following table in § 419.13(d).  
<sup>2</sup> Within the range of 6.0 to 9.0.

(b) The limits set forth in paragraph (a) of this section are to be multiplied by the following factors to calculate the maximum for any one day and maximum average of daily values for thirty consecutive days.

(1) Size factor.

1,000 bbl of feedstock per stream day	Size factor
Less than 24.9 .....	1.02
25.0 to 49.9 .....	1.06
50.0 to 74.9 .....	1.16
75.0 to 99.9 .....	1.26
100 to 124.9 .....	1.38
125.0 to 149.9 .....	1.50
150.0 or greater .....	1.57

(2) Process factor.

Process configuration	Process factor
Less than 2.49 .....	0.62
2.5 to 3.49 .....	0.67
3.5 to 4.49 .....	0.80
4.5 to 5.49 .....	0.95
5.5 to 5.99 .....	1.07
6.0 to 6.49 .....	1.17
6.5 to 6.99 .....	1.27
7.0 to 7.49 .....	1.39
7.5 to 7.99 .....	1.51
8.0 to 8.49 .....	1.64
8.5 to 8.99 .....	1.79
9.0 to 9.49 .....	1.95
9.5 to 9.99 .....	2.12
10.0 to 10.49 .....	2.31
10.5 to 10.99 .....	2.51
11.0 to 11.49 .....	2.73
11.5 to 11.99 .....	2.98
12.0 to 12.49 .....	3.24
12.5 to 12.99 .....	3.53
13.0 to 13.49 .....	3.84
13.5 to 13.99 .....	4.18
14.0 or greater .....	4.36

(3) See the comprehensive example Subpart D, § 419.42(b)(3).

(c) The following allocations constitute the quantity and quality of pollutants or pollutant properties controlled by this paragraph and attributable to ballast, which may be discharged after the application of best practicable control technology currently available, by a point source subject to this subpart, in addition to the discharge allowed by paragraph (b) of this section. The allocation allowed for ballast water flow, as kg/cu m (lb/M gal), shall be based on those ballast waters treated at the refinery.

Pollutant or pollutant property	BPT effluent limitations for ballast water	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Metric units (kilograms per cubic meter of flow)	
BOD5 .....	0.048	0.026
TSS .....	0.033	0.021
COD <sup>1</sup> .....	0.47	0.24
Oil and grease .....	0.015	0.008
pH .....	( <sup>2</sup> )	( <sup>2</sup> )
	English units (pounds per 1,000 gal of flow)	
BOD5 .....	0.40	0.21
TSS .....	0.26	0.17
COD <sup>1</sup> .....	3.9	2.0
Oil and grease .....	0.126	0.067
pH .....	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> See footnote following table in § 419.13(d).  
<sup>2</sup> Within the range of 6.0 to 9.0.

(d) The quantity and quality of pollutants or pollutant properties controlled by this paragraph, attributable to once-through cooling water, are excluded from the discharge allowed by paragraph (b) of this section. Once-through cooling water may be discharged with a total organic carbon concentration not to exceed 5 mg/l.

(e) *Effluent limitations for contaminated runoff.* The following effluent limitations constitute the quantity and quality of pollutants or pollutant properties controlled by this paragraph and attributable to contaminated runoff, which may be discharged after the application of the best practicable control technology currently available by a point source subject to this subpart.

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(1) If wastewater consists solely of contaminated runoff and is not commingled or treated with process wastewater, it may be discharged if it does not exceed 15 mg/l oil and grease and 110 mg/l total organic carbon (TOC) based upon an analysis of any single grab or composite sample.

(2) If contaminated runoff is commingled or treated with process wastewater, or if wastewater consisting solely of contaminated runoff which exceeds 15 mg/l oil and grease or 110 mg/l TOC is not commingled or treated with any other type of wastewater, the quantity of pollutants discharged shall not exceed the quantity determined by multiplying the flow of contaminated runoff as determined by the permit writer times the concentrations listed in the following table:

Pollutant or pollutant property	BPT effluent limitations for contaminated runoff	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Metric units (kilograms per 1,000 m <sup>3</sup> of flow)	
BOD <sub>5</sub> .....	48.	26.
TSS .....	33.	21.
COD <sup>1</sup> .....	360.	180.
Oil and grease .....	15.	8.
Phenolic compounds (4AAP) .....	0.35	0.17
Total chromium .....	0.73	0.43
Hexavalent chromium .....	0.062	0.028
pH .....	( <sup>2</sup> )	( <sup>2</sup> )
	English units (pounds per 1,000 gallons of flow)	
BOD <sub>5</sub> .....	0.40	0.22
TSS .....	0.28	0.18
COD <sup>1</sup> .....	3.0	1.5
Oil and grease .....	0.13	0.067
Phenolic compounds (4AAP) .....	0.0029	0.0014
Total chromium .....	0.0060	0.0035
Hexavalent chromium .....	0.00052	0.00023
pH .....	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup>In any case in which the applicant can demonstrate that the chloride ion concentration in the effluent exceeds 1,000 mg/l (1,000 ppm), the permitting authority may substitute TOC as a parameter in lieu of COD. A TOC effluent limitation shall be based on effluent data from the particular refinery which correlates TOC to BOD<sub>5</sub>. If in the judgment of the permitting authority, adequate correlation data are not available, the effluent limitations for TOC shall be established at a ratio of 2.2 to 1 to the applicable effluent limitations for BOD<sub>5</sub>.

<sup>2</sup>Within the range of 6.0 to 9.0.

[47 FR 46446, Oct. 18, 1982, as amended at 50 FR 28522, 28523, July 12, 1985; 50 FR 32414, Aug. 12, 1985]

§419.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

(a) 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 degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

Pollutant or pollutant property	BAT effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Metric units (kilograms per 1,000 m <sup>3</sup> of feedstock)	
COD <sup>1</sup> .....	117	60.3
Ammonia as N .....	2.81	1.27
Sulfide .....	0.149	0.068
	English units (pounds per 1,000 bbl of feedstock)	
COD <sup>1</sup> .....	41.2	21.3
Ammonia as N .....	0.99	0.45
Sulfide .....	0.053	0.024

<sup>1</sup> See footnote following table in §419.13(d).

(b) The limits set forth in paragraph (a) of this section are to be multiplied by the following factors to calculate the maximum for any one day and maximum average of daily values for thirty consecutive days.

(1) Size factor.

1,000 bbl of feedstock per stream day	Size factor
Less than 24.9 .....	1.02
25.0 to 49.9 .....	1.06
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75.0 to 99.9 .....	1.26
100 to 124.9 .....	1.38
125.0 to 149.9 .....	1.50
150.0 or greater .....	1.57

(2) Process factor.

Process configuration	Process factor
Less than 2.49 .....	0.62
2.5 to 3.49 .....	0.67
3.5 to 4.49 .....	0.80
4.5 to 5.49 .....	0.95
5.5 to 5.99 .....	1.07
6.0 to 6.49 .....	1.17
6.5 to 6.99 .....	1.27