

**Environmental Protection Agency**

**§ 419.42**

Process configuration	Process factor
6.5 to 6.99 .....	1.08
7.0 to 7.49 .....	1.17
7.5 to 7.99 .....	1.28
8.0 to 8.49 .....	1.39
8.5 to 8.99 .....	1.51
9.0 to 9.49 .....	1.65
9.5 or greater .....	1.72

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

(c) The provisions of § 419.16(c) apply to discharges of process wastewater pollutants attributable to ballast water by a point source subject to the provisions of this subpart.

(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 Runoff.* [Reserved]

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

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

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources (PSNS).

(a) The following standards apply to the total refinery flow contribution to the POTW:

Pollutant or pollutant property	Pretreatment standards for new sources maximum for any 1 day
	Milligrams per liter (mg/l)
Oil and grease .....	100
Ammonia (as N) .....	100

<sup>1</sup> Where the discharge to the POTW consists solely of sour waters, the owner or operator has the option of complying with this limit or the daily maximum mass limitation for ammonia set forth in § 419.36 (a) and (b).

(b) The following standard is applied to the cooling tower discharge part of the total refinery flow to the POTW by multiplying: (1) The standard; (2) by

the total refinery flow to the POTW; and (3) by the ratio of the cooling tower discharge flow to the total refinery flow.

Pollutant or pollutant property	Pretreatment standards for new sources maximum for any 1 day
	Milligrams per liter (mg/l)
Total chromium .....	1

**Subpart D—Lube Subcategory**

**§ 419.40 Applicability; description of the lube subcategory.**

The provisions of this subpart are applicable to all discharges from any facility that produces petroleum products by the use of topping, cracking, and lube oil manufacturing processes, whether or not the facility includes any process in addition to topping, cracking, and lube oil manufacturing processes. The provisions of this subpart are not applicable, however, to facilities that include the processes specified in subparts C and E of this part.

**§ 419.41 Specialized definitions.**

The general definitions, abbreviations and methods of analysis set forth in part 401 of this chapter and the specialized definitions set forth in § 419.11 shall apply to this subpart.

**§ 419.42 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):

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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
	Metric units (kilograms per 1,000 m <sup>3</sup> of feedstock)	
BOD <sup>5</sup> .....	50.6	25.8
TSS .....	35.6	22.7
COD <sup>1</sup> .....	360.0	187.0
Oil and grease .....	16.2	8.5
Phenolic compounds .....	0.38	0.184
Ammonia as N .....	23.4	10.6
Sulfide .....	0.33	0.150
Total chromium .....	0.77	0.45
Hexavalent chromium .....	0.068	0.030
pH .....	( <sup>2</sup> )	( <sup>2</sup> )
	English units (pounds per 1,000 bbl of feedstock)	
BOD <sub>5</sub> .....	17.9	9.1
TSS .....	12.5	8.0
COD <sup>1</sup> .....	127.0	66.0
Oil and grease .....	5.7	3.0
Phenolic compounds .....	0.133	0.065
Ammonia as N .....	8.3	3.8
Sulfide .....	0.118	0.053
Total chromium .....	0.273	0.160
Hexavalent chromium .....	0.024	0.011
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 49.9 .....	0.71
50.0 to 74.9 .....	0.74
75.0 to 99.9 .....	0.81
100.0 to 124.9 .....	0.88
125.0 to 149.9 .....	0.97
150.0 to 174.9 .....	1.05
175.0 to 199.9 .....	1.14
200.0 or greater .....	1.19

(2) Process factor.

Process configuration	Process factor
Less than 6.49 .....	0.81
6.5 to 7.49 .....	0.88
7.5 to 7.99 .....	1.00
8.0 to 8.49 .....	1.09
8.5 to 8.99 .....	1.19
9.0 to 9.49 .....	1.29
9.5 to 9.99 .....	1.41
10.0 to 10.49 .....	1.53
10.5 to 10.99 .....	1.67
11.0 to 11.49 .....	1.82
11.5 to 11.99 .....	1.98
12.0 to 12.49 .....	2.15

Process configuration	Process factor
12.5 to 12.99 .....	2.34
13.0 or greater .....	2.44

(3) Example of the application of the above factors. Example—Lube refinery 125, 000 bbl per stream day throughput.

CALCULATION OF THE PROCESS CONFIGURATION

Process category	Process included	Weighting factor
Crude .....	Atm crude distillation .....	1
	Vacuum, crude distillation ..	
Cracking and coking .....	Desalting .....	6
	Fluid cat. cracking .....	
	Vis-breaking .....	
	Thermal cracking .....	
	Moving bed cat. cracking ...	
Lube .....	Hydrocracking .....	13
	Fluid coking .....	
	Delayed coking .....	
Asphalt .....	Further defined in the development document.	12
	Asphalt production .....	
	Asphalt oxidation .....	
	Asphalt emulsifying .....	

Process	Capacity (1,000 bbl per stream day)	Capacity relative to throughput	Weighting Factor	Processing configuration
Crude:				
Atm .....	125.0	1.0	.....	.....
Vacuum ..	60.0	0.48	.....	.....
Desalting ...	125.0	1.0	.....	.....
Total .....		2.48	×1	=2.48
Cracking-FCC .....	41.0	0.328	.....	.....
Hydrocracking ...	20.0	0.160	.....	.....
Total .....		0.488	×6	=2.93
Lubes .....	5.3	0.042	.....	.....
	4.0	0.032	.....	.....
	4.9	0.039	.....	.....
Total .....		0.113	×13	=1.47
Asphalt ...	4.0	0.032	×12	=.38
Refinery process configuration .....				=7.26

Notes:  
 See Table § 419.42(b)(2) for process factor. Process factor=0.88.  
 See Table § 419.42(b)(1) for size factor for 125,000 bbl per stream day lube refinery. Size factor=0.97.  
 To calculate the limits for each parameter, multiply the limit § 419.42(a) by both the process factor and size factor. BOD<sub>5</sub> limit (maximum for any 1 day)=17.9×0.88×0.97=15.3 lb. per 1,000 bbl of feedstock.

(c) The provisions of § 419.12(c) apply to discharges of process wastewater pollutants attributable to ballast water by a point source subject to the provisions of this subpart.

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(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.

(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> )

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
	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]

**§ 419.43 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	
COD <sup>1</sup> .....	360.0	187.0
Ammonia as N .....	23.4	10.6
Sulfide .....	0.33	0.150
	English units (pounds per 1,000 bbl of feedstock)	
COD <sup>1</sup> .....	127.0	66.0
Ammonia as N .....	8.3	3.8