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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 § 419.56 (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 standards; (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  |

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

*Crude Processes*

1. Atmospheric Crude Distillation
2. Crude Desalting
3. Vacuum Crude Distillation

*Cracking and Coking Processes*

4. Visbreaking
5. Thermal Cracking
6. Fluid Catalytic Cracking
7. Moving Bed Catalytic Cracking
10. Hydrocracking
15. Delayed Coking
16. Fluid Coking

54. Hydrotreating

*Asphalt Processes*

18. Asphalt Production
32. 200° F Softening Point Unfluxed Asphalt
43. Asphalt Oxidizing
89. Asphalt Emulsifying

*Lube Processes*

21. Hydrofining, Hydrofinishing, Lube Hydrofining
22. White Oil Manufacture
23. Propane Dewaxing, Propane Deasphalting, Propane Fractioning, Propane Deresining
24. Duo Sol, Solvent Treating, Solvent Extraction, Duotreating, Solvent Dewaxing, Solvent Deasphalting
25. Lube Vac Twr, Oil Fractionation, Batch Still (Naphtha Strip), Bright Stock Treating
26. Centrifuge and Chilling
27. MEK Dewaxing, Ketone Dewaxing, MEK-Toluene Dewaxing
28. Deoiling (wax)
29. Naphthenic Lubes Production
30. SO<sub>2</sub> Extraction
34. Wax Pressing
35. Wax Plant (with Neutral Separation)
36. Furfural Extraction
37. Clay Contacting—Percolation
38. Wax Sweating
39. Acid Treating
40. Phenol Extraction

*Reforming and Alkylation Processes*

8. H<sub>2</sub>SO<sub>4</sub> Alkylation
  12. Catalytic Reforming
- [50 FR 28528, July 12, 1985; 50 FR 32414, Aug. 12, 1985]

**PART 420—IRON AND STEEL MANUFACTURING POINT SOURCE CATEGORY**

**GENERAL PROVISIONS**

- Sec.
- 420.01 Applicability.
  - 420.02 General definitions.
  - 420.03 Alternative effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available, best available technology economically achievable, best available demonstrated control technology, and best conventional pollutant control technology (the “water bubble”).
  - 420.04 Calculation of pretreatment standards.
  - 420.05 Pretreatment standards compliance date.
  - 420.06 Removal credits for phenols (4AAP).

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420.07 Effluent limitations guidelines and standards for pH.

420.08 Non-process wastewater and storm water.

### Subpart A—Cokemaking Subcategory

420.10 Applicability.

420.11 Specialized definitions.

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

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

420.14 New source performance standards (NSPS).

420.15 Pretreatment standards for existing sources (PSES).

420.16 Pretreatment standards for new sources (PSNS).

420.17 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional technology (BCT).

420.18 Pretreatment standards compliance dates.

### Subpart B—Sintering Subcategory

420.20 Applicability; description of the sintering subcategory.

420.21 Specialized definitions.

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

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

420.24 New source performance standards (NSPS).

420.25 Pretreatment standards for existing sources (PSES).

420.26 Pretreatment standards for new sources (PSNS).

420.27 [Reserved]

420.28 Pretreatment standards compliance dates.

420.29 Point of compliance monitoring.

### Subpart C—Ironmaking Subcategory

420.30 Applicability; description of the ironmaking subcategory.

420.31 Specialized definitions.

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

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

420.34 New source performance standards (NSPS).

420.35 Pretreatment standards for existing sources (PSES).

420.36 Pretreatment standards for new sources (PSNS).

420.37 [Reserved]

### Subpart D—Steelmaking Subcategory

420.40 Applicability; description of the steelmaking subcategory.

420.41 Specialized definitions.

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

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

420.44 New source performance standards (NSPS).

420.45 Pretreatment standards for existing sources (PSES).

420.46 Pretreatment standards for new sources (PSNS).

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

420.48 Pretreatment standards compliance dates.

### Subpart E—Vacuum Degassing Subcategory

420.50 Applicability; description of the vacuum degassing subcategory.

420.51 [Reserved]

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

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

420.54 New source performance standards (NSPS).

420.55 Pretreatment standards for existing sources (PSES).

420.56 Pretreatment standards for new sources (PSNS).

420.57 [Reserved]

**Subpart F—Continuous Casting  
Subcategory**

- 420.60 Applicability; description of the continuous casting subcategory.
- 420.61 [Reserved]
- 420.62 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 420.63 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 420.64 New source performance standards (NSPS).
- 420.65 Pretreatment standards for existing sources (PSES).
- 420.66 Pretreatment standards for new sources (PSNS).
- 420.67 [Reserved]

**Subpart G—Hot Forming Subcategory**

- 420.70 Applicability; description of the hot forming subcategory.
- 420.71 Specialized definitions.
- 420.72 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 420.73 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 420.74 New source performance standards (NSPS).
- 420.75 Pretreatment standards for existing sources (PSES).
- 420.76 Pretreatment standards for new sources (PSNS).
- 420.77 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional technology (BCT).

**Subpart H—Salt Bath Descaling  
Subcategory**

- 420.80 Applicability; description of the salt bath descaling subcategory.
- 420.81 Specialized definitions.
- 420.82 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 420.83 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

- 420.84 New source performance standards (NSPS).
- 420.85 Pretreatment standards for existing sources (PSES).
- 420.86 Pretreatment standards for new sources (PSNS).
- 420.87 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional technology (BCT).

**Subpart I—Acid Pickling Subcategory**

- 420.90 Applicability; description of the acid pickling subcategory.
- 420.91 Specialized definitions.
- 420.92 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 420.93 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 420.94 New source performance standards (NSPS).
- 420.95 Pretreatment standards for existing sources (PSES).
- 420.96 Pretreatment standards for new sources (PSNS).
- 420.97 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional technology (BCT).

**Subpart J—Cold Forming Subcategory**

- 420.100 Applicability; description of the cold forming subcategory.
- 420.101 Specialized definitions.
- 420.102 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 420.103 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 420.104 New source performance standards (NSPS).
- 420.105 Pretreatment standards for existing sources (PSES).
- 420.106 Pretreatment standards for new sources (PSNS).
- 420.107 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional technology (BCT).

**Subpart K—Alkaline Cleaning Subcategory**

- 420.110 Applicability; description of the alkaline cleaning subcategory.
- 420.111 Specialized definitions.

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- 420.112 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 420.113 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 420.114 New source performance standards (NSPS).
- 420.115 Pretreatment standards for existing sources (PSES).
- 420.116 Pretreatment standards for new sources (PSNS).
- 420.117 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional technology (BCT).

**Subpart L—Hot Coating Subcategory**

- 420.120 Applicability; description of the hot coating subcategory.
- 420.121 Specialized definitions.
- 420.122 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 420.123 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 420.124 New source performance standards (NSPS).
- 420.125 Pretreatment standards for existing sources (PSES).
- 420.126 Pretreatment standards for new sources (PSNS).
- 420.127 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional technology (BCT).

**Subpart M—Other Operations Subcategory**

- 420.130 Applicability.
- 420.131 Specialized definitions.
- 420.132 Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).
- 420.133 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 420.134 New source performance standards (NSPS).
- 420.135 Pretreatment standards for existing sources (PSES).
- 420.136 Pretreatment standards for new sources (PSNS).

- 420.137 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best control technology for conventional pollutants (BCT).

AUTHORITY: 33 U.S.C. 1311, 1314, 1316, 1317, 1318, 1342, and 1361.

SOURCE: 47 FR 23284, May 27, 1982, unless otherwise noted.

**GENERAL PROVISIONS**

**§ 420.01 Applicability.**

(a) The provisions of this part apply to discharges and to the introduction of pollutants into a publicly owned treatment works resulting from production operations in the Iron and Steel Point Source Category.

(b) *Central Treatment Facilities.* (1) The following central treatment facilities presently discharging through the specified outfall are temporarily excluded from the provisions of this part, *provided*, the owner or operator of the facility requests the Agency to consider establishing alternative effluent limitations and provides the Agency with the information set out in paragraph (b)(2) of this section, on or before July 26, 1982.

| Plant   | NPDES permit No. | Central treatment facility                  |
|---|------------------|---|
| 1. Armco Steel, Ashland, KY.                    | KY 0000485 ...   | Total Plant.                                |
| 2. Bethlehem Steel, Sparrows Point, MD.         | MD 0001201 ..    | Humphrey's Creek Outfall 014.               |
| 3. Bethlehem Steel, Burns Harbor, IN.           | IN 0000175 ....  | Total Plant.                                |
| 4. Ford Motor Co., Dearborn, MI.                | MI 0003361 ...   | Schaefer Road Treatment Plant.              |
| 5. Interlake, Inc., <sup>1</sup> Riverdale, IL. | IL 0002119 ....  | Discharge to POTW.                          |
| 6. J&L Steel, Aliquippa, PA.                    | PA 0006131 ...   | Chemical Rinse Treatment Plant Outfall 018. |
| 7. J&L Steel, Cleveland, OH.                    | OH 0000850 ..    | Hot Forming and Finishing Treatment Plant.  |
| 8. J&L Steel, Hennepin, IL.                     | IL 0002631 ....  | Total Plant.                                |
| 9. J&L Steel, Louisville, OH.                   | OH 0007188 ..    | Total Plant.                                |
| 10. J&L Steel, East Chicago, IN.                | IN 0000205 ....  | Terminal Treatment Plant.                   |
| 11. Laclede Steel, Alton, IL.                   | IL 0000612 ....  | Total Plant.                                |
| 12. National Steel, Granite City, IL.           | IL 0000329 ....  | Total Plant.                                |
| 13. National Steel, Portage, IN.                | IN 0000337 ....  | Total Plant.                                |
| 14. National Steel, Weirton, WV.                | WV 0003336 ..    | Outfall B.                                  |
| 15. Republic Steel, Gadsden, AL.                | AL 0003522 ...   | Total Plant.                                |

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| Plant   | NPDES permit No. | Central treatment facility |
|---|------------------|----------------------------|
| 16. Republic Steel, <sup>1</sup> Chicago, IL 0002593. | IL. 0002593 ...  | Discharge to POTW.         |
| 17. U.S. Steel, Lorain, OH.                           | OH 0001562 ..    | Pipe Mill Lagoon.          |
| 18. U.S. Steel, Provo, UT.                            | UT 0000361 ...   | Total Plant.               |
| 19. U.S. Steel, Fairless Hills, PA.                   | PA 0013463 ...   | Terminal Treatment Plant.  |
| 20. U.S. Steel, Gary, IN.                             | IN 0000281 ....  | Terminal Lagoons.          |
| 21. U.S. Steel, <sup>1</sup> Chicago, IL.             | IL 0002691 ....  | Discharge to POTW.         |

<sup>1</sup> The request for alternative effluent limitations for these plants are for indirect discharges to POTWs

(2) The information to be submitted with the request for consideration of alternative effluent limitations is to include:

(i) A schematic diagram of the existing wastewater treatment facility showing each source of wastewater, cooling water, and other waters entering the treatment facility; discharge and recycle flow rates for each water source and each major treatment component;

(ii) Existing monitoring data relating to discharges to and from the central treatment facility including pollutant concentrations, flows and mass loadings; As a minimum, monitoring data should be provided for a six month period of normal operation of the production and treatment facilities. The complete data as well as a data summary including the maximum, minimum, and mean gross discharge loadings and the standard deviation of the discharge loadings for each monitored pollutant should be provided. Any supplemental monitoring data for toxic pollutants should also be provided.

(iii) A scale map of the area of the plant served by the wastewater treatment facility, including the treatment facility and water supply and discharge points;

(iv) An estimate of the least costly investment required to meet the generally applicable limitations or standards for the facility and a description of such treatment system including schematic diagrams showing the major treatment system components and flow rates through the system. As a minimum, the cost estimates should be comprised of a single page summary for each water pollution control system

showing estimated installed direct cost totals for mechanical equipment; piping and instrumentation; foundations and structural components; and, electrical components. Indirect costs for contingencies, overhead and profit, engineering fees, and any other indirect costs must be itemized separately. The sum of the direct and indirect costs which represents the owner's or operator's total estimate, must be shown.

(v) The effluent limitations or standards which could be achieved if the discharger were to spend an amount equal to the Agency's model treatment system cost estimate for the facility and the treatment facilities which would be used to meet those limitations or standards. Schematic diagrams and cost estimates as outlined in paragraph (b)(2)(iv) of this section, should be provided for each treatment system; and,

(vi) Production rates in tons per day for each process contributing wastewater to the central treatment facility consistent with those reported by the owner or operator in the NPDES permit application for the central treatment facility.

(3) The request described in subsection (b)(1) of this section, must be based upon the owner's or operator's belief that the cost of bringing the specified central treatment facilities into compliance with the provisions of this part would require expenditures so high compared to the Agency's model treatment system cost estimate applicable to that facility that the applicable limitations or standards would not represent BPT, BAT, BCT, or PSES, as the case may be, for the facility.

[47 FR 23284, May 27, 1982, as amended at 47 FR 41739, Sept. 22, 1982]

§ 420.02 General definitions.

In addition to the definitions set forth in 40 CFR part 401, the following definitions apply to this part:

(a) The term *TSS* (or total suspended solids, or total suspended residue) means the value obtained by the method specified in 40 CFR 136.3.

(b) The term *oil and grease* (or O&G) means the value obtained by the method specified in 40 CFR 136.3.

(c) The term *ammonia-N* (or ammonia-nitrogen) means the value obtained