

RULES AND REGULATIONS

Guidelines

- Subpart G—Rayon Subcategory**
- Sec. 416.70 Applicability; description of the rayon subcategory.
- 416.71 Specialized definitions.
- 416.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 416.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 416.74 [Reserved]
- 416.75 Standards of performance for new sources.
- 416.76 Pretreatment standards for new sources.

Subpart H—Acrylonitrile-Butadiene-Styrene (ABS) and Styrene-Acrylonitrile (SAN) Resin Copolymer Subcategory

- 416.80 Applicability; description of the acrylonitrile-butadiene-styrene (ABS) and styrene-acrylonitrile (SAN) resin copolymer subcategory.
- 416.81 Specialized definitions.
- 416.82 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 416.83 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 416.84 [Reserved]
- 416.85 Standards of performance for new sources.
- 416.86 Pretreatment standards for new sources.

Subpart I—Polyester Subcategory

- 416.90 Applicability; description of the polyester subcategory.
- 416.91 Specialized definitions.
- 416.92 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 416.93 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 416.94 [Reserved]
- 416.95 Standards of performance for new sources.
- 416.96 Pretreatment standards for new sources.

Subpart J—Nylon 66 Subcategory

- 416.100 Applicability; description of the nylon 66 subcategory.
- 416.101 Specialized definitions.
- 416.102 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 416.103 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

- Sec. 416.104 [Reserved]
- 416.105 Standards of performance for new sources.
- 416.106 Pretreatment standards for new sources.

Subpart K—Nylon 6 Subcategory

- 416.110 Applicability; description of the nylon 6 subcategory.
- 416.111 Specialized definitions.
- 416.112 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 416.113 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

- 416.114 [Reserved]
- 416.115 Standards of performance for new sources.
- 416.116 Pretreatment standards for new sources.

Subpart L—Cellulose Acetate Subcategory

- 416.120 Applicability; description of the cellulose acetate subcategory.
- 416.121 Specialized definitions.
- 416.122 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 416.123 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 416.124 [Reserved]
- 416.125 Standards of performance for new sources.
- 416.126 Pretreatment standards for new sources.

Subpart M—Acrylics Subcategory

- 416.130 Applicability; description of the acrylics subcategory.
- 416.131 Specialized definitions.
- 416.132 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 416.133 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 416.134 [Reserved]
- 416.135 Standards of performance for new sources.
- 416.136 Pretreatment standards for new sources.

AUTHORITY: Secs. 301, 304 (b) and (c), 306 (b) and (c) and 307 (c) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317 (c)); 36 Stat. 516 et seq.; Pub. L. 92-500.

Subpart A—Polyvinyl Chloride Subcategory

§ 416.10 Applicability; description of the polyvinyl chloride subcategory.

The provisions of this subpart are applicable to discharges resulting from the polymerization reaction of vinyl chloride by bulk polymerization, or suspension polymerization, or emulsion polymeriza-

tion and associated processing to manufacture polyvinyl chloride.

§ 416.11 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

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

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations established the quantity or quality of pollutants or pollutant properties, controlled by this paragraph which may be discharged from the manufacture of polyvinyl chloride by the suspension polymerization process by a point source subject to the provisions of this subpart after application of the best practical control technology currently available:

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§ 416.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of polyvinyl chloride by the suspension polymerization process by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.70	0.36
COD.....	7.0	3.6
TSS.....	1.8	.00
pH.....	Within the range 6.0 to 9.0	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.70	0.36
COD.....	7.0	3.6
TSS.....	1.8	.00
pH.....	Within the range 6.0 to 9.0	

(b) The following limitations established the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of polyvinyl chloride by the emulsion polymerization process by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.26	0.13
COD.....	2.6	1.3
TSS.....	.65	.30
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.26	0.13
COD.....	2.6	1.3
TSS.....	.65	.30
pH.....	Within the range 6.0 to 9.0.	

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of polyvinyl chloride by the bulk polymerization process by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.12	0.06
COD.....	1.2	.60
TSS.....	.20	.16
pH.....	Within the range 6.0 to 9.0	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.12	0.06
COD.....	1.2	.60
TSS.....	.20	.16
pH.....	Within the range 6.0 to 9.0	

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.41	0.20
COD.....	1.92	1.20
TSS.....	.23	.19
pH.....	Within the range 6.0 to 9.0	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.41	0.20
COD.....	1.92	1.20
TSS.....	.23	.19
pH.....	Within the range 6.0 to 9.0	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of polyvinyl chloride by the emulsion polymerization process by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristics	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.26	0.13
COD.....	.92	.61
TSS.....	.11	.092
pH.....	Within the range 6.0 to 9.0	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.26	0.13
COD.....	.92	.61
TSS.....	.11	.092
pH.....	Within the range 6.0 to 9.0	

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of polyvinyl chloride by the bulk polymerization process by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

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Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.09	0.06
COD.....	.42	.26
TSS.....	.05	.042
pH.....	Within the range 6.0 to 9.0	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.09	0.06
COD.....	.42	.26
TSS.....	.05	.042
pH.....	Within the range 6.0 to 9.0	

§ 416.14 [Reserved]

§ 416.15 Standards of performance for new sources.

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of polyvinyl chloride by the suspension polymerization process by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.37	0.19
COD.....	1.70	.80
TSS.....	.10	.12
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.37	0.19
COD.....	1.70	.80
TSS.....	.10	.12
pH.....	Within the range 6.0 to 9.0.	

(b) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of polyvinyl chloride by the emulsion polymerization process by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.26	0.13
COD.....	1.20	.61
TSS.....	.14	.092
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.26	0.13
COD.....	1.20	.61
TSS.....	.14	.092
pH.....	Within the range 6.0 to 9.0.	

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RULES AND REGULATIONS

do not affect the conclusions of the economic impact study.

D—COST-BENEFIT ANALYSIS

The detrimental effects of the constituents of waste waters now discharged by point sources within the Major Organic Product segment of the Organic Chemical Manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the Major Organic Products Segment of the Organic Chemicals Manufacturing Point Source Category" (December 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's water ways. Nevertheless, as indicated in Section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines Organic Chemicals Industry," (August 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the organic chemicals manufacturing industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

E—SOLID WASTE CONTROL

Solid waste control must be considered. The waterborne wastes from the plastics and synthetics industry may contain a considerable volume of metals in various forms as a part of the suspended solids pollutant. Best practicable control technology and best available control technology, as they are known today, require disposal of the pollutants removed from waste waters in this industry in the form of solid wastes and liquid concentrates. In some cases these are nonhazardous substances requiring only minimal custodial care. However, some constituents may be hazardous and may require special consideration. In order to ensure long term protection of the environment from these hazardous or harmful constituents, special consideration of disposal sites must be made. All landfill sites where such hazardous wastes are disposed should be selected so as to prevent horizontal and vertical migration of these contaminants to ground or surface waters. In cases where geologic

conditions may not reasonably ensure this, adequate precautions (e.g., impervious liners) should be taken to ensure long term protection to the environment from hazardous materials. Where appropriate the location of solid hazardous materials disposal sites should be permanently recorded in the appropriate office of the legal jurisdiction in which the site is located.

F—PUBLICATION OF INFORMATION ON PROCESSES, PROCEDURES, OR OPERATING METHODS WHICH RESULT IN THE ELIMINATION OR REDUCTION OF THE DISCHARGE OF POLLUTANTS

In conformance with the requirements of section 304(c), a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Major Organic Chemicals Products Segment of the Organic Chemicals Manufacturing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20461 for a nominal fee.

G—FINAL RULEMAKING

In consideration of the foregoing, 40 CFR Chapter I, Subchapter N is hereby amended by adding a new Part 414, Organic Chemicals Manufacturing Point Source Category, to read as set forth below. An order of the Federal District Court for the District of Columbia entered in *NRDC v. Train* (Civ. No. 1608-73) on November 26, 1973, required that the Administrator sign final effluent limitations guidelines for this industry category by March 22, 1974. That order was subsequently modified on March 14, 1974, and the date for signing extended until April 15, 1974. Thereafter, on March 15, 1974, the District Court ordered that the effective date for effluent limitations guidelines established by its November 26 order remain applicable and not be affected by the extension in the publication date. The effective date for effluent limitations guidelines for this industry established by the Court's November 26 order is May 13, 1974. Accordingly, good cause is found for the final regulation promulgated as set forth below to be effective on May 13, 1974.

Dated: April 17, 1974.

JOHN QUARLES,
Acting Administrator.

Subpart A—Nonaqueous Processes Subcategory

- Sec.
- 414.10 Applicability; description of the nonaqueous processes subcategory.
 - 414.11 Specialized definitions.
 - 414.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
 - 414.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
 - 414.14 [Reserved]
 - 414.15 Standards of performance for new sources.
 - 414.16 Pretreatment standards for new sources.

Subpart B—Processes With Process Water Contact as Steam Diluent or Absorbent

- Sec.
- 414.20 Applicability; description of the processes with process water contact as steam diluent or absorbent subcategory.
 - 414.21 Specialized definitions.
 - 414.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
 - 414.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
 - 414.24 [Reserved]
 - 414.25 Standards of performance for new sources.
 - 414.26 Pretreatment standards for new sources.

Subpart C—Aqueous Liquid Phase Reaction Systems

- 414.30 Applicability; description of the aqueous liquid phase reaction systems subcategory.
- 414.31 Specialized definitions.
- 414.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 414.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 414.34 [Reserved]
- 414.35 Standards of performance for new sources.
- 414.36 Pretreatment standards for new sources.

AUTHORITY: Secs. 301, 304(b) and (c), 306 (b) and (c), 307(c), 316(b), Federal Water Pollution Control Act, as amended; 33 U.S.C. 1251, 1311, 1314(b) and (c), 1316(b) and (c), 1317(c), 1326(c); 36 Stat. 516 et seq.; Pub. L. 92-500.

Subpart A—Nonaqueous Processes Subcategory

- § 414.10 Applicability; description of the nonaqueous processes subcategory.

The provisions of this subpart are applicable to discharges of process waste water resulting from the manufacture of the following products:

Products	Process descriptions
BTX aromatics.....	Hydrotreatment of pyrolysis gasoline.
BTX aromatics.....	Solvent extraction from reformate.
Cyclohexane.....	Hydrogenation of benzene.
Vinyl chloride.....	Addition of hydrochloric acid to acetylene.

- § 414.11 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.

- § 414.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account

all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.045	0.02
TSS.....	0.027	0.03
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.045	0.02
TSS.....	0.027	0.03
pH.....	Within the range 6.0 to 9.0.	

§ 414.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this

section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
COD.....	0.082	0.045
BOD ₅	0.015	0.005
TSS.....	0.022	0.013
pH.....	Within the range 6.0 to 9.0.	
English units (pound per 1,000 lb of product)		
COD.....	0.082	0.045
BOD ₅	0.015	0.005
TSS.....	0.022	0.013
pH.....	Within the range 6.0 to 9.0.	

§ 414.14 [Reserved]

§ 414.15 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.037	0.017
TSS.....	0.034	0.015
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.037	0.017
TSS.....	0.034	0.015
pH.....	Within the range 6.0 to 9.0.	

§ 414.16 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the nonaqueous processes subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 123 of this Chapter except that, for the purpose of this section, § 123.133 of this Chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 123.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 414.16; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of

such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

Subpart B—Processes With Process Water Contact as Steam Diluent or Absorbent Subcategory

§ 414.20 Applicability; description of the processes with process water contact as steam diluent or absorbent subcategory.

The provisions of this subpart are applicable to discharges of process wastewater resulting from the manufacture of the following products:

B1 products	B1 process descriptions
Acetone.....	Dehydrogenation of isopropanol.
Butadiene.....	Coproduct of ethylene.
Ethyl benzene.....	Alkylation of benzene with ethylene.
Ethylene and propylene.....	Pyrolysis of naphtha or liquid petroleum gas.
Ethylene dichloride.....	Direct chlorination of ethylene.
Ethylene oxide.....	Catalytic oxidation of ethylene.
Formaldehyde.....	Oxidation of methanol.
Methanol.....	Steam reforming of natural gas.
Methyl amines.....	Addition of ammonia to methane.
Vinyl acetate.....	Synthesis of ethylene and acetic acid.
Vinyl chloride.....	Cracking of ethylene dichloride.
B2 products	B2 process descriptions
Acetaldehyde.....	Dehydrogenation of ethanol.
Acetylene.....	Partial oxidation of methane.
Butadiene.....	Dehydrogenation of n-butane.
Butadiene.....	Oxidative-dehydrogenation of n-butane.
Styrene.....	Dehydrogenation of ethyl benzene.

§ 414.21 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.

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

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested

DTH 000088779

RULES AND REGULATIONS

person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetone, butadiene (co-product of ethylene), ethyl benzene, ethylene and propylene, ethylene dichloride, ethylene oxide, formaldehyde, methanol, methyl amines, vinyl acetate, or vinyl chloride (cracking of ethylene dichloride) by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD ₅	0.13	0.058
TSS.....	.20	.088
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD ₅	0.13	0.058
TSS.....	.20	.088
pH.....	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (dehydrogenation of ethanol), acetylene (partial oxidation of methane), butadiene (dehydrogenation of n-butane), butadiene (oxidative-dehydrogenation of n-butane), or styrene by a point source

subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD ₅	0.95	0.42
TSS.....	1.42	.64
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD ₅	0.95	0.42
TSS.....	1.42	.64
pH.....	Within the range 6.0 to 9.0.	

§ 414.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetone, butadiene (co-product of ethylene), ethyl benzene, ethylene and propylene, ethylene dichloride, ethylene oxide, formaldehyde, methanol, methyl amines, vinyl acetate, or vinyl chloride (cracking of ethylene dichloride) by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
CO ₂	0.80	0.58
BOD ₅	.044	.025
TSS.....	.008	.040
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
CO ₂	0.80	0.58
BOD ₅	.044	.025
TSS.....	.008	.040
pH.....	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (dehydrogenation of ethanol), acetylene (partial oxidation of methane) butadiene (dehydrogenation of n-butane), butadiene (oxidative-dehydrogenation of n-butane) or styrene by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
COD.....	1.32	0.98
BOD ₅	.32	.18
TSS.....	.48	.20
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
COD.....	1.32	0.98
BOD ₅	.32	.18
TSS.....	.48	.20
pH.....	Within the range 6.0 to 9.0.	

§ 414.24 [Reserved]

§ 414.25 Standards of performance for new sources.

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetone, butadiene (co-product of ethylene), ethyl benzene, ethylene and propylene, ethylene dichloride, ethylene oxide, formaldehyde, methanol, methyl amines, vinyl acetate, or vinyl chloride (cracking of ethylene dichloride) by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD ₅	0.11	0.048
TSS.....	.10	.044
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD ₅	0.11	0.048
TSS.....	.10	.044
pH.....	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (dehydrogenation of ethanol), acetylene (partial oxidation of methane), butadiene (dehydrogenation of n-butane), butadiene (oxidative-dehydrogenation of n-butane) or styrene by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD ₅	0.76	0.34
TSS.....	.72	.32
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD ₅	0.76	0.34
TSS.....	.72	.32
pH.....	Within the range 6.0 to 9.0.	

§ 414.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the processes with process water contact as stream diluent or absorbent subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this Chapter except that, for the purpose of this section, § 128.133 of this Chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 414.25; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

Subpart C—Aqueous Liquid Phase Reaction Systems Subcategory

§ 414.30 Applicability; description of the aqueous liquid phase reaction systems subcategory.

The provisions of this subpart are applicable to discharges of process waste water resulting from the manufacture of the following products:

<i>C1 products</i>	<i>C1 process descriptions</i>
Acetic acid.....	Oxidation of acetaldehyde.
Acrylic acid.....	Synthesis with carbon monoxide and acetylene.
Coal tar.....	Distillation of coal tar.
Ethylene glycol.....	Hydrogenation of ethylene oxide.
Terephthalic acid..	Catalytic oxidation of p-xylene.
Terephthalic acid (polymer grade)..	Purification of crude terephthalic acid.
<i>C2 products</i>	<i>C2 process descriptions</i>
Acetaldehyde.....	Oxidation of ethylene with oxygen.
Caprolactam.....	Oxidation of cyclohexane.
Coal tar.....	Pitch forming.
Oxo chemicals.....	Carbonylation and condensation.
Phenol and acetone.	Cumene oxidation and cleavage.
<i>C3 products</i>	<i>C3 process descriptions</i>
Acetaldehyde.....	Oxidation of ethylene with air.
Aniline.....	Nitration and hydrogenation of benzene.
Bisphenol A.....	Condensation of phenol and acetone.
Dimethyl terephthalate.	Esterification of terephthalic acid.
<i>C4 products</i>	<i>C4 process descriptions</i>
Acrylates.....	Esterification of acrylic acid.
p-Cresol.....	Sulfonation of toluene.
Methyl methacrylate.	Acetone cyanohydrin process.
Terephthalic acid..	Nitrile acid process.
Tetraethyl lead.....	Addition of ethyl chloride to lead amalgam.

§ 414.31 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.

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

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent level established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetic acid, acrylic acid, coal tar (distillation), ethylene glycol, terephthalic acid (oxidation of p-xylene), or polymer grade terephthalic acid (purification of terephthalic acid) by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.28	0.12
TSS.....	.42	.10
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.28	0.12
TSS.....	.42	.10
pH.....	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (oxidation of ethylene with oxygen), caprolactam, coal tar (pitch forming), oxo chemicals, or phenol and acetone (cumene process) by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	0.55	0.25
TSS.....	.56	.25
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
BOD ₅	0.55	0.25
TSS.....	.56	.25
pH.....	Within the range 6.0 to 9.0.	

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (oxidation of ethylene with air), aniline, bisphenol A, or dimethyl terephthalate by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent Limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
BOD ₅	1.15	0.51
TSS.....	.15	.068
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
BOD ₅	1.15	0.51
TSS.....	.15	.068
pH.....	Within the range 6.0 to 9.0.	