be correspondingly reduced for that pollutant.

[F.R. Doc. 73-25339 Filed 12-6-73; 8:15 a.m.]

[40 CFR Part 418]

FERTILIZER MANUFACTURING POINT SOURCE CATEGORY

Proposed Effluent Limitations Guidelines

Notice is hereby given that effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources set forth in tentative form below are proposed by the Environmental Protection Agency (EPA) for the phosphate subcategory (Subpart A), the ammonia subcategory (Subpart B), the urea subcategory (Subpart C), the ammonium nitrate subcategory (Subpart D), and the nitric acid subcategory (Subpart E) of the fertilizer manufacturing category of point source category pursuant to sections 301, 304 (b) and (c), 306 (b) 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 1317 (c); 8 Stat. 816 et seq; Pub. L. 82-560) (the "Act").

(a) Legal authority.—(1) Existing point sources. Pursuant to section 301 (b) of the Act which requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best available control technology currently available as defined by the Administrator pursuant to section 304 (b) of the Act. Section 301 (b) also requires that such effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best available control technology currently available which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304 (b) of the Act.

Section 304 (b) of the Act requires the Administrator to publish regulations providing for new sources for point sources, other than publicly owned treatment works, which require the application of the best available control technology currently available, including treatment techniques, process and procedure innovations, operating methods and other alternatives. The regulations proposed herein set forth effluent limitations and standards of performance for existing sources and standards of performance and pretreatment standards for new sources.

(b) Summary and basis of proposed effluent limitations guidelines and standards of performance for existing sources and standards of performance and pretreatment standards for new sources.

(i) General methodology. The effluent limitations guidelines and standards of performance proposed herein were developed in the following manner. The point source category was first studied for the purpose of determining whether separate limitations and standards are appropriate for different segments within the category. This analysis included a determination of whether differences in raw products produced, manufacturing process employed, age, size, waste water constituents and other factors require development of separate limitations and standards for different segments of the point source category.

The raw waste characteristics for each such segment were then identified. This included an analysis of (1) the source, flow and volume of water used in the process employed and the sources of all waste, material and wastewater, (2) the constituents of all wastewater. The constituents of the wastewater which should be subject to effluent limitations guidelines and standards of performance were identified. The control and treatment technologies existing within each segment were identified. This included an identification of each distinct control and treatment technology, including both in-plant and end-of-process technologies, which are existent or capable of being designed for each segment. It also included an identification of the chemical, physical, and biological characteristics of pollutants, the effluent level resulting from the application of each of the technologies. The problems, limitations and potential control and treatment technologies and appropriate water pollution control technology currently available, including treatment techniques, processes, operating methods, or other alternatives, including where practicable, a standard permitting no discharge of pollutants.

Section 306 (b) (1) (B) of the Act requires the Administrator to propose regulations establishing Federal standards of performance for categories of new sources included in a list published pursuant to section 306 (b) (1) (A) of the Act. The regulations proposed herein set forth the standards of performance applicable to new sources for the phosphate subcategory (Subpart A), the ammonia subcategory (Subpart B), the urea subcategory (Subpart C), the ammonium nitrate subcategory (Subpart D), and the nitric acid subcategory (Subpart E) of the fertilizer manufacturing category.

Section 307 (c) of the Act requires the Administrator to publish pretreatment standards for new sources at the same time that standards of performance for new sources are promulgated pursuant to section 306. Sections 416 (b), 418, 419, amended, provides, pursuant to section 307 (c) of the Act, the Administrator to issue to the States and appropriate water pollution control agencies information on the processes, procedures or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of the Act. The report or Development of Equipment and Facilities involved, the process employed, the engineering aspects of the application of various types of control and treatment technology, nonwater quality environmental impacts (including energy requirements) and other factors.

The data upon which the above analyses was performed included EPA permit applications, EPA sampling and inspections, consultant reports, and Industry schedules. The pretreatment standards proposed herein are intended to be complementary to the pretreatment standards proposed for existing sources under 40 CFR Part 128. The basis for such standards is set forth in the Federal Register of July 1, 1972. The limitations and standards of Part 128 are equally applicable to sources which constitute "new sources," under section 306 if they were to discharge pollutants differently in navigable waters, except for § 128.133. This section provides a pretreatment standard for "incompatible pollutants" which requires application of the "best practicable control technology currently available," subject to an adjustment for...
amounts of pollutants removed by the publicly owned treatment works. Since the pretreatment standards are applicable to existing sources under sections 301 and 304(b) of the Act.

(2) Summary of conclusions with respect to the ammonium nitrate subcategory (Subpart E) and the ammonium nitrate subcategory (Subpart D) of the fertilizer manufacturing category.

(i) Categorization. For the purpose of studying waste treatment and effluent limitations, the basic fertilizer chemicals segment of the fertilizer manufacturing category was divided into five discrete subcategories which coincide with the waste water treatment technologies used for each of the subcategories. The ammonium nitrate subcategory (Subpart D) and the nitric acid subcategory (Subpart E) are the fertilizer manufacturing category.

(ii) Waste characteristics. The pollutants or pollutant characteristics contained in raw waste waters resulting from the nitric acid subcategory (Subpart C), the ammonium nitrate subcategory (Subpart D) and the nitric acid subcategory (Subpart E) are the fertilizer manufacturing category.

(iii) Origins of waste water pollutants in the fertilizer manufacturing category.

(a) Nitric acid subcategory. Nitric acid is made by oxidizing molten sulfur at high temperatures. The process requires a large quantity of cooling water which usually flows through cooling towers and is recycled. The exchange equipment will introduce sulfuric acid to the cooling water.

(b) Ammonium nitrate subcategory. Ammonium nitrate is produced by a process called nitration, which results in the formation of nitric, ammonium nitrate and toxic nitrate-organic nitrogen, in the ammonium nitrate subcategory as nitrate. Of the materials found in the raw waste waters of the nitric acid subcategory, only cadmium is found in an appreciable quantity. Cadmium and all cadmium compounds were listed as a toxic pollutant in the FEDERAL REGISTER of July 6, 1973, 38 FR 16044. The effluent limitation for cadmium will be the same as that for cadmium, found in the ammonium nitrate subcategory. Closed loop cooling tower blowdown, manufacturing waste water, process condensate, spills and leaks, and run-off waters constitute the raw waste waters in fertilizer manufacturing.

(c) Urea subcategory. The production of ammonium nitrate is accomplished by mixing liquid ammonia and nitric acid in a low pressure vessel. Flash vaporization of water from the dilute nitric acid is the source of the process waste water. The treatment of ammonium nitrate dominates the process waste water stream. The nitrogen content of ammonium nitrate is volatilized in the process and is collected in water scrubbers. The ammonia and nitrate or nitric acid are not pure and appreciable amounts of ammonia and nitrate are emitted in the form of ammonium compounds. The ammonium nitrate subcategory is noted by the ammonium nitrate subcategory as nitrate. Oil and grease will increase in the raw waste waters of the ammonium nitrate subcategory. Oil and grease will increase in the raw waste waters of the ammonium nitrate subcategory. Oil and grease will increase in the raw waste waters of the ammonium nitrate subcategory.
lecion systems via rain water or wash water.

(e) Nitric acid subcategory. Leaks and spills are the only sources of pollution from the nitric acid subcategory. In-plant procedures to control pollution include good housekeeping, control of spills, immediate correction of leaks, reduction and control of start-up and shutdown operations, recovery of water, salvage of by-products for sale, and control of runoff and seepage from lagoons.

"End-of-pipe" waste water treatment processes include sedimentation, flocculation, precipitation, filtration, neutralization, holding basins, lagoons, cooling towers, condensers, disposal of solids to landfill areas, continuous monitoring of cooling water, evaporation, steam or air stripping of ammonia, urea hydrolysis, ion exchange and recycle.

Air pollution control processes include precipitation, filtration, demisting, stack washing, use of separator towers, cyclone separation, and diversion of components originating in air pollution control processes to waste treatment systems or raw materials, and to products. Wet scrubbing of stacks leads to heavy contamination of waste water.

Solid waste must be considered. The processes in the phosphate subcategory of the fertilizer industry generate a considerable amount of solid wastes, notably gypsum. Best practicable control technology and best available control technology, as they are known today, require solid waste disposal of these quantities. In most 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 contaminants to ground or surface waters. In cases where geologic conditions may not reasonably ensure this, adequate legal and mechanical 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 legal jurisdiction.

(v) Treatment and control technology within subcategories. Waste water treatment and pollution control technologies have been studied for each subcategory of the industry to determine what is (a) the best practicable control technology currently available, (b) the best available technology economically achievable; and (c) the best available demonstrated control technology, processes, operating methods or other alternatives.

(a) Treatment in the phosphate subcategory. The application of the best practicable control technology currently available will result in no discharge of the waste components of process waste water from plants of the phosphate subcategory.

(b) Treatment in the ammonia subcategory. Best practicable control technology currently available can be achieved by ammonia stripping by air and/or steam. Ammonia levels of 0.125 kg/kkg (0.125 lb/1000 lb) have been achieved. Alternate treatment technologies include biological nitrification and denitrification or selective ion exchange for ammonia subsequent to ammonia stripping units. Ammonia stripping units are currently under development that are expected to attain the proposed limitations for best available technology economically achievable.

Oxide and grease can be controlled at the source by drip pans under pumps and compressors. Otherwise oil and grease removal from waste streams can be accomplished by gravity type API separators.

(c) Treatment in the urea subcategory. Best practicable control technology currently available can be achieved by hydrolysis of urea and carbon dioxide. These gases can then either be returned to the urea manufacturing process or stripped to the atmosphere. The resultant effluent can achieve ammonia and organic nitrogen levels of 0.075 kg/kg (0.075 lb/1000 lb) of product and 0.0375 kg/kg (0.0375 lb/1000 lb) of product respectively. Alternate urea hydrolysis units are currently under development that are expected to further reduce the ammonia and organic nitrogen levels to the proposed limitations for best available technology economically achievable.

(d) Treatment in the ammonium nitrate subcategory. Best practicable control technology currently available can be achieved by ion exchange removal of ammonium and nitrate ions. Ammonium and nitrate levels of 0.1 kg/kg (0.1 lb/) and 0.125 kg/kg (0.125 lb/1000 lb) of product respectively can be achieved. The treated water may be reused within the plant as make-up boiler feed water, or as cooling tower make-up water, or may be recycled back to the raw water treatment unit. The regeneration of the ion exchange resins creates a concentrated ammonium nitrate waste which may be further concentrated and sold.

(e) Treatment in the nitric acid subcategory. There is no discharge of process waste water from the nitric acid manufacturing process. Best practicable control technology and best available technology currently available can be achieved by the use of the "no discharge" condition, except during exceptional periods of heavy rainfall. The resultant effluent can achieve ammonium, nitrate and nitrite levels of 0.075 kg/kg (0.075 lb/1000 lb) and nitrate levels of 0.1 kg/kg (0.1 lb/1000 lb) have been achieved. Alternate treatment technology currently available can be achieved at a cost of $0.10 per ton of product.

(f) Treatment in the urea subcategory. Best practicable control technology currently available can be achieved at a cost of $1.11 per ton of product. Best available technology economically achievable can be achieved at a cost of $0.33 per ton of product.

(g) Treatment in the nitric acid subcategory. Best practicable control technology currently available can be achieved at a cost of $1.70 per ton of product. Best available technology economically achievable can be achieved at a cost of $0.69 per ton of product. Best available technology economically achievable can be achieved at a cost of $0.08 per ton of product.
ammonium nitrate. Increased costs due to the costs of installing water pollution control equipment are computed into the end-products, rather than presenting a separate category.

(vii) Establishing daily maximum limitations. Similar treatment by other industrial categories of the waste water parameter from a feed has shown no detrimental environmental effects. No deleterious noise or radiation problems are associated with the proposed wastewater treatment methods for the fertilizer manufacturing category. Solid wastes disposed in the manner previously discussed will not have an environmental impact.

(e) Economic impact analysis. The economic analysis has focused on both internal and external costs associated with the proposed levels of water pollution abatement.

The total investment and annual costs required for all subcategories of this segment of the industry to achieve the proposed effluent limitations guidelines represents the best practicable control technology currently available are estimated at $10.0 million and $10.7 million, respectively. Additional total investment and annual costs of $3.3 million and $3.3 million, respectively, are estimated to achieve the proposed effluent limitations guidelines representing the best available technology economically achievable.

The total cost of water pollution abatement, both operating and raw material costs, for each product has been related to the average product selling price to determine the magnitude of either price increases, if these costs can be passed on, or decreases in profit. These percentages range from 2.2 percent for triple superphosphate to 4.4 percent for ammonium nitrate after the application of best practicable control technology currently available. The application of best available technology economically achievable will result in additional increases that range from 0.2 percent for triple superphosphate and diammonium nitrate to 5.5 percent for ammonium nitrate.

External cost deals basically with the assessment of economic impact of the internal costs discussed above in terms of price increases, production curtailments or plant closures, resultant employment, community and regional impacts, international impacts, and other factors. It has been found that the variability of price increases, production curtailments or plant closures, employment impacts, community and regional impacts, and international impacts are so great that it is not possible to deal with these factors on an individual plant basis.

The manufacture of only two chemicals, ammonium phosphate and ammonium nitrate, are expected to receive any significant economic impact by application of the proposed guidelines for 1977, 1983, or new sources. For ammonium phosphate, constraints on pricing due to increased production in the mid-decade, may threaten between 3 to 16 of the smallest plants which represent 7 to 39 percent of the ammonium phosphate production capacity. This over-supply situation is due to the planned building of several large plants to take advantage of the economies of scale. If this over expansion were not to occur, either very few or no plant closings would be predicted. For ammonium nitrate, higher pollution costs coupled with constraints on price increases may threaten between 16 to 29 of the smallest plants which represent 30 percent of the ammonium nitrate production capacity. Of these plants, all but 10 are part of a complex which produces other fertilizer products. At the worst, the impact of any shutdown of a single process within a complex will be somewhat offset by the increased production of other fertilizer products.

The affected fertilizer plants are located throughout the United States, and no single area is expected to be greatly impacted. It is expected that there will be no long term effects to the U.S. balance of trade.

A report entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the FERTILIZER CHEMICALS Segment of the Fertilizer Manufacturing Point Source Category" details the analysis undertaken in support of the regulations being proposed herein and is available for inspection in the EPA Information Center, Room 227, West Tower, Washington, D.C., at all EPA regional offices, and at State water pollution control offices. A supplementary analysis prepared for the EPA of the possible economic effects of the proposed regulations is also available for inspection at these locations. Copies of both of these documents are being sent to persons or institutions affected by the regulations, or who have placed themselves on a mailing list for this purpose (see EPA's Advance Notice of Public Review Procedures, 38 FR 21202, August 6, 1973). An additional mailing of copies of both reports are available. Persons wishing to obtain a copy may write the EPA Information Center, Environmental Protection Agency, Washington, D.C. 20460, Attention: Mr. Philip B. Wisman.

(d) Summary of public participation. Prior to this publication, the agencies and groups listed below were consulted and given an opportunity to participate in the development of the effluent limitations guidelines and standards proposed for the fertilizer manufacturing category. All participating agencies have been informed of project developments.

An initial draft of the Development Document sent to all groups and comments were solicited on that report. The following are the principal agencies and groups consulted: (1) Effluent Standards and Water Quality Information Advisory Committee (formed under section 515 of the Act); (2) all State and U.S. Territory Pollution Control Agencies except those who specifically requested to be omitted (North Dakota, Montana, Utah, Wyoming, Michigan, and Washington); (3) American Fertilizer Institute; (4) Manufacturing Chemicals Association; (5) Puerto Rico Land Association; (6) The American Society of Mechanical Engineers; (7) Mississippi River Sloop Restoration, Inc.; (8) The Conservation Foundation; (9) Environmental Defense Fund, Inc.; (10) National Resources Defense Council; (11) The American Society of Civil Engineers; (12) The American Society of Mechanical Engineers; (13) Water Pollution Control Federation; (14) National Wildlife Federation; (15) U.S. Ecology, Inc.; (16) Western Montana Scientists Committee for Public Information; (17) U.S. Department of Commerce; (18) U.S. Department of the Interior; (19) U.S. Department of Agriculture; and (20) U.S. Water Resources Council.

The following organizations responded with comments: The Fertilizer Institute; E.I. du Pont de Nemours and Company; Allied Chemical Corporation; Tennessee Valley Authority; Natural Resources Defense Council; U.S. Water Resources Council; Western Montana Committee for Public Information; Effluent Standards and Water Quality Information Advisory Committee; U.S. Department of Commerce; U.S. Department of the Interior; U.S. Department of Agriculture; Iowa State University; State of Florida, Department of Pollution Control; New York State Department of Environmental Conservation; State of California, Water Resources Control Board; Idaho Environmental Quality Agency; State of North Carolina, Department of Natural and Economic Resources; State of Alaska, Department of Environmental Conservation; State of Nebraska, Department of Environmental Control; and State of Pennsylvania.

The primary issues raised in the development of the proposed limitations guidelines and standards of performance and the treatment of these issues herein are as follows:

1. The proposal was raised that water quality factors were not taken into account in establishing effluent guidelines. The Act differentiates between

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PROPOSED RULES

PART 418—EFFLUENT LIMITATIONS GUIDELINES FOR EXISTING SOURCES AND STANDARDS OF PERFORMANCE AND PRETREATMENT STANDARDS FOR NEW SOURCES FOR THE FERTILIZER MANUFACTURING POINT SOURCE CATEGORY

Subpart A—Phosphate Subcategory

Sec. 418.10 Applicability; description of phosphate subcategory.

418.11 Specialized definitions.

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

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

418.14 Standards of performance for new sources.

418.15 Pretreatment standards for new sources.

Subpart B—Ammonia Subcategory

418.20 Applicability; description of ammonia subcategory.

418.21 Specialized definitions.

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

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

418.24 Standards of performance for new sources.

418.25 Pretreatment standards for new sources.

Subpart C—Urea Subcategory

418.30 Applicability; description of urea subcategory.

418.31 Specialized definitions.

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

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

418.34 Standards of performance for new sources.

418.35 Pretreatment standards for new sources.

Subpart D—Ammonium Nitrate Subcategory

418.40 Applicability; description of ammonium nitrate subcategory.

418.41 Specialized definitions.

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

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

418.44 Standards of performance for new sources.

418.45 Pretreatment standards for new sources.
Subpart E—Nitric Acid Subcategory

§ 418.50 Applicability; description of nitric acid subcategory.

§ 418.51 Special definitions.

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

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

§ 418.54 Standards of performance for new sources.

§ 418.55 Pretreatment standards for new sources.

Applicability: See 301, 304 (b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended (33 U.S.C., 1251, 1314 (b) and (c), 1316(b) and 1317(c); 86 Stat. 816 et seq. Pub. L. 92-500 (the "Act").

Subpart A—Phosphate Subcategory

§ 418.10 Applicability; description of phosphate subcategory.

The provisions of this subpart are applicable to the discharges resulting from the manufacture of sulfuric acid by sulfur burning, wet process phosphoric acid, normal superphosphate, triple superphosphate and ammonium phosphate.

§ 418.11 Specialized definitions.

For the purposes of this subpart:

(a) The term "process waste water" shall mean any water which during the manufacture of sulfuric acid by sulfur burning, wet process phosphoric acid, normal superphosphate, triple superphosphate and ammonium phosphate.

(b) The term "process waste pollutants" shall mean pollutants contained in process waste waters.

(c) The term "impoundment," "for the purposes of calculating excess water discharged," shall be the water surface area at maximum impoundment capacity.

(d) The following abbreviations shall have the following meanings: (1) "mg/l." shall mean milligrams per liter and (2) "TSS" shall mean total suspended nonfilterable solids.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the best available technology economically achievable by a point source subject to the provisions of this subpart:

(a) Subject to the provisions of paragraph (b), (c), and (d) of this section, there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed and operated so as to contain the precipitation from the year, 24-hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 10-year, 24-hour rainfall event, when such event occurs.

(c) During any calendar month there may be discharged from a process waste water impoundment either a volume of process waste water equal to the difference between the precipitation for that month that falls within the impoundment and the excess for that month, or, if greater, a volume of process waste water equal to the difference between the mean precipitation for that month as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located (or as otherwise determined if no monthly data have been established by the National Climatic Center).

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after the application of the best available technology economically achievable by a point source subject to the provisions of this subpart:

(a) Subject to the provisions of paragraph (b) of this section, there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed and operated so as to contain the precipitation from the year, 24-hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25-year, 24-hour rainfall event, when such event occurs.

§ 418.14 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after the application of standards of performance for new sources by a point source subject to the provisions of this subpart:

(a) Subject to the provisions of paragraph (b) of this section, there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed and operated so as to contain the precipitation from the year, 24-hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25-year, 24-hour rainfall event, when such event occurs.

§ 418.15 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the phosphate subcategory which is an industrial 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 navigable waters), shall be the standard set forth in Part 78 of this chapter, except that for the purposes of this section, § 128.133 of this chapter, shall be amended to read as follows: "in addition to the prohibitions set forth in § 128.133 of this chapter, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributor to the industry shall be the standard of performance for new sources specified in § 128.14: 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 be correspondingly reduced for that pollutant."

Subpart B—Ammonia Subcategory

§ 418.20 Applicability; description of ammonia subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of ammonia.

§ 418.21 Specialized definitions.

For the purposes of this subpart:

(a) The term "oil and grease" shall mean those components of waste water...
The term "product" shall mean the anhydrous ammonia content of the compound manufactured.

The following abbreviations shall have the following meanings: (1) "kg" shall mean kilograms, (2) "kkg" shall mean 1000 kilograms, and (3) "lb" shall mean pounds.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the best practicable control technology currently available by a point source subject to the provisions of this subpart:

**Effluent characteristic** Effluent limitations

**Ammonia Nitrogen.**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>Maximum for any one day (0.11 lb/1000 lb).</td>
</tr>
<tr>
<td>Oil and grease</td>
<td>Maximum for any one day 0.025 kg/kkg of product (0.025 lb/1000 lb).</td>
</tr>
<tr>
<td>pH</td>
<td>Within the range of 6.0 to 9.0.</td>
</tr>
</tbody>
</table>

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the best available technology economically achievable by a point source subject to the provisions of this subpart:

**Effluent characteristic** Effluent limitations

**Ammonia Nitrogen.**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>Maximum for any one day (0.15 lb/1000 lb).</td>
</tr>
<tr>
<td>Oil and grease</td>
<td>Maximum for any one day 0.025 kg/kkg of product (0.025 lb/1000 lb).</td>
</tr>
<tr>
<td>pH</td>
<td>Within the range of 6.0 to 9.0.</td>
</tr>
</tbody>
</table>

§ 418.24 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the standards of performance for new sources by a point source subject to the provisions of this subpart:

**Effluent characteristic** Effluent limitations

**Ammonia Nitrogen.**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>Maximum for any one day (0.11 lb/1000 lb).</td>
</tr>
<tr>
<td>Oil and grease</td>
<td>Maximum for any one day 0.025 kg/kkg of product (0.025 lb/1000 lb).</td>
</tr>
<tr>
<td>pH</td>
<td>Within the range of 6.0 to 9.0.</td>
</tr>
</tbody>
</table>

§ 418.25 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the ammonia subcategory which is an industrial user, are specified in Table 418.25(a) of this chapter, except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows: "In addition to the limitations set forth in § 128.133 of this chapter, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 418.24; Provided, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to eliminate a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall be correspondingly reduced for that pollutant."

**Subpart C—Urea Subcategory**

§ 418.30 Applicability; description of urea subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of urea.

§ 418.31 Specialized definitions.

For the purpose of this subpart:


(b) The term "product" shall mean the urea content of the compound manufactured.

The following abbreviations shall have the following meanings: (1) "kg" shall mean kilograms, (2) "kkg" shall mean 1000 kilograms, and (3) "lb" shall mean pounds.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the best practicable control technology currently available by a point source subject to the provisions of this subpart:

**Effluent characteristic** Effluent limitations

**Ammonia Nitrogen.**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>Maximum for any one day (0.175 kg/kkg of product (0.2 lb/1000 lb).</td>
</tr>
<tr>
<td>Oil and grease</td>
<td>Maximum for any one day 0.125 kg/kkg of product (0.15 lb/1000 lb).</td>
</tr>
<tr>
<td>pH</td>
<td>Within the range of 6.0 to 9.0.</td>
</tr>
</tbody>
</table>

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the best available technology economically achievable by a point source subject to the provisions of this subpart:

(a) The following limitations constitute the maximum permissible discharge on the basis of production for urea manufacturing operations in which urea is not prilled:

**Effluent characteristic** Effluent limitations

**Ammonia Nitrogen.**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>Maximum for any one day 0.175 kg/kkg of product (0.2 lb/1000 lb).</td>
</tr>
<tr>
<td>Oil and grease</td>
<td>Maximum for any one day 0.125 kg/kkg of product (0.15 lb/1000 lb).</td>
</tr>
<tr>
<td>pH</td>
<td>Within the range of 6.0 to 9.0.</td>
</tr>
</tbody>
</table>
(b) The following limitations constitute the maximum permissible discharge on the basis of production for urea manufacturing operations in which urea is prilled:

**Effluent characteristic**

**Ammonia nitrogen.**

Maximum for any one day 0.065 kg/kkg of product (0.05 lb/1000 lb).

Maximum average of daily values for any period of thirty consecutive days 0.015 kg/kkg of product (0.0125 lb/1000 lb).

Maximum average of daily values for any period of thirty consecutive days 0.0325 kg/kkg of product (0.025 lb/1000 lb).

Organic nitrogen.

Maximum for any one day 0.03 kg/kkg of product (0.025 lb/1000 lb).

Maximum average of daily values for any period of thirty consecutive days 0.025 kg/kkg of product (0.025 lb/1000 lb).

**pH**

Within the range of 6.0 to 9.0.

§ 418.35 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for a source within the urea subcategory which is an industrial user of a publicly owned treatment works (and which would be a new source subject to section 307(c) of the Act, if it were to discharge pollutants to navigable waters), shall be the standard set forth in Part 128 of this chapter, except that for the purposes of this section, § 128.133 of this chapter shall be amended to read as follows: “In addition to the prohibitions set forth in § 128.131 of this chapter, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 418.34: 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 be correspondingly reduced for that pollutant.”

Subpart D—Ammonium Nitrate Subcategory

§ 418.40 Applicability; description of ammonium nitrate subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of ammonium nitrate.

§ 418.41 Specialized definitions.

For the purposes of this subpart:

(a) The term “product” shall mean the anhydrous ammonium nitrate content of the compound(s) manufactured.

(b) The following abbreviations shall have the following meanings: (1) “Kg” shall mean kilograms (2) “lb” shall mean pounds.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the best practicable control technology currently available by a point source subject to the provisions of this subpart:

**Effluent characteristic**

**Ammonia nitrogen.**

Maximum for any one day 0.1 kg/kkg of product (0.1 lb/1000 lb).

Maximum average of daily values for any period of thirty consecutive days 0.03 kg/kkg of product (0.025 lb/1000 lb).

Maximum average of daily values for any period of thirty consecutive days 0.065 kg/kkg of product (0.0525 lb/1000 lb).

Nitrate nitrogen.

Maximum for any one day 0.125 kg/kkg of product (0.125 lb/1000 lb).

Maximum average of daily values for any period of thirty consecutive days 0.0625 kg/kkg of product (0.05 lb/1000 lb).

**pH**

Within the range of 6.0 to 9.0.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the best available technology economically achievable by a point source subject to the provisions of this subpart:

**Effluent characteristic**

**Ammonia nitrogen.**

Maximum for any one day 0.015 kg/kkg of product (0.015 lb/1000 lb).

Maximum average of daily values for any period of thirty consecutive days 0.0075 kg/kkg of product (0.0065 lb/1000 lb).

Nitrate nitrogen.

Maximum for any one day 0.0625 kg/kkg of product (0.05 lb/1000 lb).

Maximum average of daily values for any period of thirty consecutive days 0.0075 kg/kkg of product (0.0065 lb/1000 lb).

**pH**

Within the range of 6.0 to 9.0.

§ 418.44 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the standards of performance for new sources by a point source subject to the provisions of this subpart:

**Effluent characteristic**

**Ammonia nitrogen.**

Maximum for any one day 0.065 kg/kkg of product (0.05 lb/1000 lb).

Maximum average of daily values for any period of thirty consecutive days 0.0325 kg/kkg of product (0.025 lb/1000 lb).

Maximum average of daily values for any period of thirty consecutive days 0.0625 kg/kkg of product (0.05 lb/1000 lb).

**pH**

Within the range of 6.0 to 9.0.

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The following limitations constitute the quantity of pollutants or pollutant properties which may be discharged after application of the best practicable control technology currently available by a point source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants into navigable waters.

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

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of the best available technology economically achievable by a point source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants into navigable waters.

§ 418.54 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of standards of performance for new sources by a point source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants into navigable waters.

§ 418.55 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act, for industries within the ammonium nitrate subcategory which is an industrial 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 navigable waters), shall be the standards set forth in Part 128 of this chapter, except that for the purposes of this section, § 128.133 of this chapter, shall be amended to read as follows: “In addition to the limitations set forth in § 128.131 of this chapter, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 418.44: 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 be correspondingly reduced for that pollutant.”

Subpart E—Nitric Acid Subcategory

§ 418.50 Applicability; description of nitric acid subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of nitric acid used as an intermediate product for the manufacture of fertilizer products or other intermediate products.

§ 418.51 Specialized definitions.

For the purposes of this subpart:

(a) The term “process waste water” shall mean any water which during the manufacturing process comes in direct contact with any raw material, intermediate product, by-product, waste product or finished product.

(b) The term “process waste water pollutants” shall mean pollutants contained in process waste water.

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

Proposed Effluent Limitations Guidelines

Notice is hereby given that effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources set forth in tentative form are proposed by the Environmental Protection Agency (EPA) for the leather tanning and finishing category of point sources pursuant to sections 301, 304 (b) and (e), 306(b) and 307(c) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311, 1314 (b) and (e), 1316(b) and 1317(c); 46 Stat. 816 et seq.; Pub. L. 92-500 (the Act).

(a) Legal authority—(1) Existing point sources. Section 304(b) of the Act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available, as defined by the Administrator pursuant to section 304(b) of the Act. Section 304(b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best available demonstrated control technology which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b) to the Act.

Section 304(b) of the Act requires the Administrator to publish regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available and the degree of effluent reduction obtainable through the application of the best control measures and practices achievable including treatment techniques, process and procedures, equipment innovations, operating methods, and other alternatives. The regulations proposed herein set forth effluent limitations and performance guidelines for sources set forth in §§ 418.30—418.39, to the extent such regulations are applicable to the leather tanning and finishing category.

(b) New sources. Section 306 of the Act requires the Administrator to propose regulations establishing performance guidelines of a Federal standard of performance providing for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines shall be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives including, where practicable, a standard permitting no discharge of pollutants.

Section 306(b) (1) (B) of the Act requires the Administrator to propose regulations establishing performance standards for categories of new sources included in a list published pursuant to section 306(b) (1) (A) of the Act. The Administrator published in the Federal Register of January 16, 1973 (38 FR 1624), a list of 27 source categories, including the leather tanning and finishing category. The regulations proposed herein set forth the standards of performance applicable to new sources for the leather tanning and finishing category.