Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER N—EFFLUENT GUIDELINES AND STANDARDS

PART 418—FERTILIZER MANUFACTURING POINT SOURCE CATEGORY

Phosphate, Ammonia, Urea, Ammonium Nitrate, and Nitric Acid Subcategories

On December 7, 1973 notice was published in the FEDERAL REGISTER (38 FR 33852), that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the phosphate subcategory, the ammonia subcategory, the urea subcategory, the ammonium nitrate subcategory and the nitric acid subcategory of the fertilizer manufacturing category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the fertilizer manufacturing category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 418. This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended (the Act); 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR Part 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section at 39 FR 12842 of this issue, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the fertilizer manufacturing category. In addition, the regulations as proposed were supported by two other documents: (1) The document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Basic Fertilizer Chemicals Segment of the Fertilizer Manufacturing Point Source Category" (November 1973) and (2) the document entitled ('Economic Analysis of Proposed Effluent Guidelines for the Fertilizer Industry" (November 1973). Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response thereto follows:

The regulation as promulgated contains some significant departures from the proposed regulation. The following discussion outlines the reasons why these changes were made and why other suggested changes were not made.

(a) *Summary of comments.* The following responded to the request for written comments contained in the preamble to the regulation: The United States Water Resources Council; Kaiser Agricultural Chemicals; Vistron Corporation; Phillips Petroleum Company; Terra Chemicals International, Inc.; Hercules, Inc.; Hawkeye Chemical Company; The Fertilizer Institute; Gardinier, Inc.; The University of Nebraska, College of Agriculture; County Sanitation District of Los Angeles County; Farmland Industries, Inc.; Gulf Oil Company, U.S.; Florida Phosphate Council; Agway, Inc.; C.F. Industries, Inc.; State of New York, Department of Environmental Conservation; Freeport Chemical Company; Tennessee Valley Authority; E. I. DuPont de Nemours and Company; and the United States Department of Commerce. Each of the comments received was carefully reviewed and analyzed.

The following is a summary of the significant comments and the Agency's response to those comments.

(1) Several commenters considered the proposed limits on the discharge of fluoride and total phosphorus to be too stringent. The validity of the data was questioned, and the contractor's initial recommendations were advocated. It was also commented that the limitations proposed could be attained only at a pH greater than 9.0.

In reviewing the data on which the proposed standards were based, it was discovered that the low phosphorus concentrations in one plant were attributable to dilution of its impoundment water from underground springs. Accordingly, the promulgated effluent limitations for phosphorus have been recalculated employing the data from the remaining plants for which information is available. These limitations can be achieved within the revised pH limitations.

(2) One person complained that requiring a high pH will necessarily increase the total dissolved solids concentration.

The total dissolved solids concentration is not necessarily increased to any significant degree when the pH level is raised by use of lime. The benefits of retaining metals, radioactive substances and other harmful constituents as precipitates outweighs the possible harm of slightly increasing the total dissolved solids concentration. The pH limitations promulgated will not adversely affect aquatic organisms.

(3) It was stated that even those plants in the phosphate category which employ 93 percent sulphuric acid (rather than 50 percent) and which therefore contribute no water to the gypsum pond from the process, cannot consistently achieve no discharge. Moreover, the use of gypsum pond water to dilute the sulphuric acid was claimed to be unproved.

Gypsum pond water dilution of sulphuric acid is presented as one method of insuring a negative water balance in the gypsum pond, so that no contaminated water need be discharged except during periods of intense precipitation—the level of control specified as attainable by the best available technology economically achievable. This technology is currently in use in European plants, is domestically available through two process design companies, and has recently been put into operation in one major American plant. Other methods of achieving a negative water balance are also available to plants utilizing concentrated as well as dilute acid. For example, companies which employ concentrated acid and which have not achieved no discharge commonly allow rainwater runoff from surrounding areas to enter their gypsum ponds, thus substantially increasing the volume of influent water which the pond must accept. Curtailment of this practice would allow plants to meet the no discharge requirement except during periods of catastrophic rainfall. The issue is discussed in more detail in paragraph (5), below.

(4) One company requested that separate subcategories be established for those phosphate fertilizer plants which recover fluoride and those which do not have a market for by-product fluoride. The justification offered for this additional subcategorization was that the latter plants will have a much higher fluoride concentration in their raw waste water.

The fact of higher fluoride concentrations in the raw waste load is largely irrelevant since lime precipitation (one technology cited in the Development Document) will achieve the effluent limitations on fluoride regardless of whether or not a portion of the fluoride is recovered in the process.

(5) The concept of total impoundment of gypsum pond water was severely criticized. Several plants pump storm runoff into their gypsum ponds, making a state of no discharge impossible. The cost of treating gypsum pond overflow for storms up to a 24 hour, 10 or 25 year rainfall event was stated to be excessive.

The problem of gypsum pond water containment centers on the current practice at many plants of pumping storm runoff into the gypsum ponds. In some

instances, this practice is used to cheaply obtain makeup water for the pond. The 1977 limitations require retention of gypsum pond water except during times of chronic rainfall.

There currently are plants that can achieve no discharge of gypsum pond water except during periods of heavy rainfall. For the purpose of this regulation, periods of chronic rainfall are defined to be those months in which the amount of precipitation exceeds the amount of evaporation. During such chronic rainfalls there may be discharged an amount of water equal to the difference between the rainfall and the evaporation within the gypsum pond. Drainage area outside the boundaries of the gypsum pond is not to be included in the calculation of the precipitation volume. This discharge from the pond must be treated to the limits specified in the regulation. This degree of treatment is also currently being attained by plants within the industry.

So that a plant need not treat a discharge only at the time of a chronic rainfall, the plant is allowed to gradually release from the gypsum pond the quantity of water attributable to the difference between rainfall and evaporation for that month, on the basis of past records for these parameters. These data may be obtained from the National Climatic Center, National Oceanic and Atmospheric Administration in Asheville, North Carolina, the successor agency to the U.S. Weather Bureau or, if such records are lacking, from the plant's own records.

While it is possible to treat excess precipitation during or in anticipation of chronic rainfall, it is impracticable to treat gypsum pond overflow resulting from catastrophic or near catastrophic rainfall events. Standard engineering practice includes design, construction and operation of treatment ponds with sufficient freeboard to contain a 24 hour, 10 to 50 year rainfall event. In this regulation best practicable control technology currently available specifies retention of a 24 hour, 10 years rainfall event. Best available demonstrated control technology and best available technology economically achievable specify retention of a 24 hour, 25 year rainfall event.

The gypsum ponds contain such hazardous materials as toxic metals and radioactive substances, particularly if Florida phosphate rock is used. It is therefore imperative that discharge from such ponds be prevented as far as it is practicable. This may include direct discharge of storm runoff rather than pumping it into the gypsum pond.

(6) The proposed limitation on ammonia nitrogen in discharges from gypsum ponds permitted during chronic wet weather was criticized as too stringent. It was pointed out that the concentration of nitrogen compounds in existing impoundments can reach several hundred mg/l, that future air emission control systems will increase the level of discharge to these ponds, and that specific treatment for ammonia nitrogen removal is prohibitively expensive. It was also brought out that in requiring a closed water system for ammonium phosphate operations by 1977, in-process changes would be necessary and that this is not the intent of the Act.

Control of ammonia nitrogen depends on use of the self-contained process for diammonium phosphate currently in use in three plants. Use of this process allows total recirculation of those waste streams containing ammonia nitrogen. Process changes are necessary to achieve a total recirculation system, and as the result of public comment EPA has reconsidered its position and now considers total recirculation for this process as best available technology economically achievable and best available demonstrated control technology rather than best practicable control technology currently available. However, even were this process to be universally adopted, achievement of the proposed effluent limitation would not necessarily ensue because of the extremely high levels of ammonia nitrogen in impoundments from previous discharges.

Since there is no practicable technology available to reduce these ammonia nitrogen levels in the gypsum pond the parameter has been eliminated. All plants will be required to achieve no discharge of ammonia nitrogen (except for discharges attributable to catastrophic rainfall events) as well as all other process waste water pollutants by 1983. No significant adverse environmental effect is expected as the result of deleting the no discharge requirement for this manufacturing operation as a 1977 requirement. The only allowed discharge from gypsum ponds (to which ammonium phosphate wastes are discharged) will be during periods of high rainfall, thereby minimizing environmental effects.

(7) One commenter urged that effluent limitations should be related to the resulting water quality, particularly for those plants located in areas where past discharges have had no measurable effect on water quality. Other commenters considered the proposed limitation on total suspended solids to be too low, considering the normal suspended solids concentrations in many rivers.

The FWPCA provides for two separate regulatory mechanisms, effluent limitations guidelines and water quality standards. The former, including this regulation, are intended to be based upon specified levels of technology and independent of the quality of receiving water in various locations. The data available to EPA indicate that the effluent limitations on discharges of suspended solids are attainable through technology currently in use in the phosphate subcategory.

(8) One commenter suggested that the regulation should prohibit seepage of pond waters to ground waters.

Infiltration of pond water to subsurface waters is not within the scope of the Act and hence cannot be controlled by this regulation. However, the promulgated limitations can be achieved without seepage from treatment ponds, and the Agency does not advocate such seepage for this industry.

(9) A limit for radium-226 was requested, and a minimum pH of 8.0 was suggested to assure a high degree of removal.

Uranium occurs naturally in phosphate rock, especially that from Florida. Radium-226 is a particularly dangerous decay product of uranium. On the basis of the data available, the Agency believes that double lime treatment of gypsum pond water described in the Development Document adequately removes radium-226 to a level below 3.0 picocuries when the pH is maintained above 8.0. In order to insure that this hazardous element does not enter the environment in an uncontrolled manner, the pH range has been changed from 6.0–9.0 to 8.0–9.5. The upper pH limitation was raised because of the difficulty of maintaining pH within one unit range even with automatic equipment.

(10) With respect to the effluent limitations on ammonia in the nitrogen fertilizer subcategories, it was argued that air stripping simply disperses the ammonia to the atmosphere and that the ammonia thus released will eventually reappear in the water cycle.

Air stripping of ammonia is one technology available to meet the effluent limitations. Other alternatives (such as steam stripping or urea hydrolysis) produce no discharge of ammonia to the atmosphere. There are currently no EPA air standards for ammonia and the concentration levels of ammonia resulting from air stripping towers are below the threshold levels of human odor perception.

(11) One commenter complained that separate limitations for each manufacturing element of the nitrogen fertilizer segment (e.g., urea, ammonia, etc.) is impracticable for a complex utilizing a common sewer for all waste water.

While many nitrogen fertilizer plants do produce more than one element, that is not necessarily the case. Moreover, for nitrogen fertilized complexes the best practicable control technology involves segregation of process waste waters from the component parts of the complex and design of treatment systems which are capable of adequately treating the specific waste streams. For example, steam stripping of process waste waters from ammonia manufacturing operations is capable of a definitive level of performance. The Agency believes this level of performance should be specified rather than submerged in a generalized numerical limitation composed of the summation of limitations on wastes from other processes.

(12) Several comments reproved the Agency for not taking into account leaks and spills when establishing the proposed guidelines. Other commenters characterized the treatment technologies described in the Development Document as unproved, "State of the Art" and unreliable.

The effluent limitations required by the best practicable control technology currently available are attainable by control systems now in place in plants in this industry (e.g., double liming and steam stripping) and the promulgated limita-

tions reflect the performance of these systems. The effluent limitations required by the best available technology economically achievable represent either the estimated potential performance of existing technology in place in some plants in the industry (e.g., urea hydrolysis and ion exchange) or the estimated capabilities of treatment technologies which are not now in use by the fertilizer industry, but which have successfully treated waste waters of similar characteristics (e.g., biological nitrification—denitrification).

The Agency does not agree that allowances, in the guidelines themselves, for in-process leaks and spills of product are necessary. Good housekeeping practices, efficient operation and prompt maintenance will minimize waste from leaks and spills. Moreover, the waste water which does occur can be segregated from contaminated streams and recovered for dry disposal or reused in the production process.

(13) It was pointed out that more oil can be expected from urea manufacturing than from ammonia manufacturing because of the use of reciprocating pumps in the former.

The data for oil and grease for both subcategories have been carefully reviewed, and it was recognized that the limits are within the range of questionable reproducibility for the standard method of analysis. The option exists to increase the limit to a point where the analysis would be reliable. However, this would in effect allow more oil and grease to be discharged. It is the judgment of EPA that for this particular category oil and grease limitations should be based instead on water quality criteria.

(14) The use of ion exchange for treatment of ammonium nitrate process waste waters was criticized by representatives of three companies. The technology was termed erratic, dangerous, and expensive. In addition, it was claimed that the costs of installing ion exchange equipment would give urea producers an unfair competitive advantage over ammonium nitrate manufacturers.

After further review EPA agrees that the capital costs may prove to be prohibitive for small or marginal plants. The economic feasibility of ion exchange is also highly dependent on whether the recovered concentrated ammonium nitrate solution is saleable.

Ion exchange is a proven treatment technology for ammonium nitrate wastes. However, questions remain regarding the feasibility and consistency of this treatment technology for this particular application. It is classified as best available technology currently available. Limita- rather than best practicable control technology currently available. Limitations for ammonium nitrate, therefore, have been revised to the average of the best levels currently being achieved by plants not using ion exchange.

(15) One commenter requested that the ammonium nitrate and nitric acid subcategories be combined since the two production operations always accompany each other.

Table 1 of the Development Document shows that there are 12 plants that manufacture either ammonium nitrate or nitric acid but not both. The two operations are physically separate even in complexes and there are substantial differences in the manufacturing processes and process water characteristics.

(16) Several comments were received suggesting that the Agency establish separate limitations in the ammonium nitrate subcategory for those plants which employ prilling towers.

Most ammonium nitrate is prilled. At the time the proposed regulations were developed, the Agency did not have sufficient data to establish limitations for nonprilling ammonium nitrate plants. Hence the proposed limitations were based on plants which do prill their product. Separate limitations based on the Agency's review of additional data are included in the promulgated regulations.

(17) It was argued that manufacturing operations other than ammonia will absorb airborne ammonia in cooling towers located in a nitrogen complex. Furthermore, placing ammonia limits on noncontact cooling water was said to penalize those operations that maximize water recycle, since once-through cooling water will not absorb airborne ammonia. Conversely, it was argued by other commenters that limitations on the amounts of zinc and chromium which may be discharged in recirculated cooling water should be added.

The problem of ammonia absorption in cooling waters is complex in that a standard raw waste load is impossible to calculate because of the variability of air leaks in the process, wind direction and temperature. The Agency proposes to develop guidelines regulating the discharge of noncontact cooling water at a future date. That regulation when promulgated will apply to discharges of noncontact cooling water from point sources in the fertilizer category. However, the limitations now promulgated do apply to noncontact cooling water that is contaminated by process waste water since by definition the former then becomes process waste water.

(18) Apparent typographical errors in the proposed regulation were pointed out. The errors apparently occurred in typesetting and an errata was published in the FEDERAL REGISTER on January 9, 1974 (39 FR 1454).

(19) A representative of one company complained that nitrogen fertilizer solutions were not covered in the regulation.

Ammonia, urea, ammonium nitrate and nitric acid solutions are covered by this regulation. The Agency considers the prevention of leaks and spillage resulting from making solutions to be one of adequate housekeeping. Hence, the regulation need not and should not contain an additional allowance for pollution from such operations.

(20) Two commenters stated that in view of the changing economy and energy situation the overall cost to benefit ratio must be weighed for the 1983 standards.

While the Act does not require that an explicit "cost/benefit" exercise be undertaken in establishing the effluent limitations guidelines attainable by the best available control technology economically achievable, it does require that the guidelines are to be revised annually if appropriate. If factors such as those mentioned indicate that a change is necessary the 1983 guidelines can be revised. At present, however, neither the economic impact nor the energy consumption implications of the 1983 standards appear unreasonable.

(21) Four contributors requested that all the data used to formulate the guidelines be divulged.

Summaries of the data used to formulate the standards appear in the Development Document. The raw data may be reviewed at the EPA Information Center as explained in the preamble to the proposed regulation.

(22) A commenter stated that the guidelines should be based on an industry-wide average not just on exemplary plants.

The Agency believes that the language of the Act, and its legislative history, preclude that approach. Congress, in the Agency's view, intended that the best practicable control technology currently available be determined by reference to the average of the best existing performances by plants of various sizes, ages, and unit processes within each industrial category. This average is to be based not on a broad range of plants but on the performance levels attained by exemplary plants within each category or subcategory.

(23) Several commenters questioned the validity of the cost data and economic analysis and stressed that many small and older plants would be closed as the result of the costs of pollution control equipment.

The costs were determined by a contractor highly knowledgeable in the fertilizer industry. Many of the cost arguments concerned very localized problems that cannot be accounted for in a general cost estimate. Many of the objections to costs and adverse economic impact should be settled as the result of assessment of new data submitted to the EPA and the subsequent changes made in the regulation. The effects of these modifications are explained in the economic impact portion of this preamble.

(24) Several commenters also questioned the severity of the standards for the daily maximum. Some commenters claimed that the EPA has declared the existing treatment to be wholly inadequate and has used the average of the best plants which are too few to be representative.

Data from this industry indicate that a factor of two between the 30 day averages and the daily maxima are reasonable for the treatment technologies cited in the Development Document. The additional allowance requested for the daily maxima are based on leaks and spills. This issue is discussed in comment (12).

All of the proposed standards are based on treatment technology currently in place in the industry. Because of the general inadequacy of waste treatment

within the industry, there are only a few plants in some subcategories that were deemed to exhibit exemplary performance. As a result of new data and public comment certain proposed standards have been revised to reflect the performance of the exemplary plants in each subcategory.

(25) There was considerable concern expressed as to effect on production by high energy demanding treatment systems in light of the current energy allocation practices. In particular, it was charged that implementation of the proposed standards will worsen the current fertilizer shortage and will in turn decrease food production.

Studies indicate that the economic impact to this industry will be minimal since ion exchange is no longer required to meet ammonium nitrate limitations. These issues are discussed in the economic impact section of this preamble. The energy increase is less than 2% for application of the best practicable control technology. Alternatives that use less energy do not satisfactorily control pollution.

(26) The Effluent Standards and Water Quality Information Advisory Committee technique of establishing limits was supported by one commenter.

The Committee's proposal is under evaluation as a contribution toward future refinements of guidelines for some industries. The Committee has indicated that its proposed methodology could not be developed in time to be available for the current phase of guideline promulgation, which is proceeding according to a court-ordered schedule. Its present state of development does not provide sufficient evidence to warrant the Agency's delaying issuance of any standard in hopes that an alternative approach might be preferable.

(27) It was suggested that concentrations (mg/l) should be used instead of production-based limitations.

Expressing effluent limitations in mass units related to production (kg of pollutant per kkg of product) rather than in concentrations insures that limitations are not met by the simple expedient of diluting the waste stream. Limitations for the phosphate subcategory were given in concentration units because discharges are related solely to rainfall not production.

(28) It was suggested that only *Standard Methods* be used and not newly determined EPA methods and that the pollutant parameters should be defined according to the method of analysis.

The methods of analysis to be used for quantitative analysis of waste water parameters were promulgated in the FEDERAL REGISTER on October 16, 1973, at 40 CFR Part 136. The General Provisions (40 CFR Part 401) have been revised to define all pollutants or pollutant properties by the method of analysis.

(29) It was commented that §§ 418.15, 418.25, 418.35, 418.45 and 418.55 of the proposed regulation can be interpreted as applying to existing sources.

The title to each section as well as the text clearly indicate that the limitations apply only to new sources.

(30) It was pointed out that nitrogen in the form of one species can be naturally converted to another form (e.g. ammonia to nitrite to nitrate) and that the guidelines should take this into account.

This conversion occurs at a slow rate and specific conditions must be met before the reaction can occur. Most of the technologies cited in the Development Document operate continuously, and it is doubtful whether nitrification or other conversion reactions will have the time to occur. For the remaining technologies where ponds are used, the treatment technologies either prevent entry of nitrogen into the pond or treat the alternate forms of nitrogen. An example of the latter are nitrification and denitrification systems.

(31) Concern was expressed regarding fluorine emissions from gypsum ponds.

With proper treatment using lime, fluoride will be precipitated and fluorine emissions to the air will be negligible.

(32) One commenter stated that the regulation should specify that the secondary pollution parameters listed in the Development Document and suggested to be monitored are not subject to limitations.

The regulation specifies those parameters that describe the respective level of treatment technology. Additional parameters may be regulated at the time of permit issuance for a particular plant, if such regulation is necessary to insure water quality. The regulation has been revised to indicate that only those parameters specifically listed are subject to it.

(33) The meaning of no discharge of pollutants was questioned.

No discharge of pollutants means that there should be no measurable quantity of pollutants discharged as determined by the detectable limit of the corresponding analytical method. In cases where no discharge of pollutants is promulgated the standard can be met by total recirculation systems in which no discharge of any water is necessary. Such model treatment and recirculation systems are described in the Development Document.

(34) One commenter stated that the standard for sulfuric acid for the inorganic chemicals category and the fertilizer category should be the same since the same process is used.

The 1977, 1983 and new source limitations for the manufacture of sulfuric acid in the inorganic chemicals category is no discharge of process waste water pollutants. No discharge of process waste water and detection and retention of leaks of process water into the noncontact cooling water has been determined to represent best practicable control technology currently available for the manufacture of sulfuric acid in the fertilizer category. Therefore, no inconsistency exists.

(35) One commenter wanted to know why a total suspended solids limitation was not proposed for the nitrogen fertilizer subcategories.

The data did not indicate that this parameter was a process waste water pollutant. Hence, no limitation was given.

(36) A commenter stated that the limitations should be used as guidelines and not rigid standards by a Regional Administrator in implementing the NPDES program.

The Act intends that uniform standards be set for each category. In establishing the limitations for the fertilizer category 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 limits established. If an individual discharger can prove that factors relating to the equipment of facilities involved, the process applied, or other factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines, the Regional Administrator or the State can establish limitations in the NPDES permit more or less stringent than the effluent guidelines limitations.

(b) *Revision of the proposed regulation prior to promulgation.* As a result of public comments and continuing review and evaluation of the proposed regulation by EPA the following changes have been made in the regulation.

(1) Minor adjustments have been made to reflect the fact that an increased number of definitions and analytical methods have been included in 40 CFR Part 401 and are incorporated by reference in this subpart.

(2) Examination of new data submitted during the period of public comment and re-evaluation of existing data has shown that the proposed limits in the phosphate subcategory for total phosphorus, nitrogen, and total suspended nonfilterable solids were too severe. These limits were appropriately readjusted in response to comments (1) and (6). The pH limits were also raised in answer to comment (9) in order to insure adequate treatment of radium-226.

(3) For the reasons following comment (17) this regulation will not regulate ammonia in noncontact cooling water. A regulation governing discharge of noncontact cooling water will be promulgated at a later date.

(4) Oil and grease limitations have been excluded in the ammonia subcategory for the reason described in comment (13).

(5) The ammonium nitrate subcategory limitations were modified to reflect the fact that ion exchange is considered to be best demonstrated and best available technologies (comment 14). The levels for best practicable control technology currently available reflect the results of good housekeeping at exemplary plants not using ion exchange.

(6) Separate limits for prilled and nonprilled ammonium nitrate are promulgated for the reasons given in answer to comment (16).

(7) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) *Economic impact.* The changes reflected in the final guidelines have not substantially altered the economic analysis presented in the proposed package with the exception of the ammonium nitrate and the ammonium phosphate segments. The revised guidelines for best practicable control technology in the ammonium nitrate subcategory are no longer based upon the use of ion exchange technology. Specifically, under the proposed best practicable control technology currently available guidelines which required ion exchange it was estimated that 16–24 ammonium nitrate plants, representing 16–23 percent of that segment's production capacity, would be forced to shut down. A revised analysis, based on delaying the requirement for ion exchange in this segment until 1983 and for new sources, shows a substantial decrease in the estimated economic impact. Assuming that the current nitrogenous fertilizer shortage continues at least into 1975, the resultant increased revenues coupled with this lower cost requirement for 1977 will maintain the economic viability of many of the most vulnerable ammonium nitrate plants.

The requirement for total recycle in the ammonium phosphate segment has been eliminated from the best practicable technology standards. As a result there will be a major reduction in projected treatment costs for 1977, and the potential for plant closures will decline. The economic impact analysis of the proposed guidelines indicated that 3–16 ammonium phosphate plants, accounting for 7–39 percent of the segment's capacity, could close as the result of pollution control costs. A preliminary revision of the analysis based on the assumption that total recycle is no longer required indicates the plant closure estimate is now reduced to approximately 0 to 10 plants, representing 0 to 10 percent of total capacity of ammonium phosphate production. Plant closures would affect an estimated maximum of 200 jobs.

It is predicted that the phosphorus fertilizer segment as a whole faces overcapacity by 1975 due to new plant construction, assuming the export market does not expand significantly beyond projected levels. Potential closures within the industry would likely take place in a period of oversupply, thus mitigating the effect of such closures on fertilizer phosphorus supply. Due to uncertainties in the analysis it is not possible to definitively delineate what portion of ammonium phosphate producers would close as the sole result of the 1977 requirements. However, it is felt that pollution control expenditures is one factor in any plant closure decision.

(d) *Cost-benefit analysis.* The detrimental effects of the constituents of waste waters now discharged by point sources within the basic fertilizer chemicals segment of the fertilizer manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the Basic Fertilizer Chemicals Segment of the Fertilizer Manufacturing Point Source Category." 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 waterways. 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, recreation 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 for the Fertilizer Industry" (November 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 fertilizer 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 fertilizer manufacturing 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) of the Act, a manual entitled "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Basic Fertilizer Chemicals Segment of the Fertilizer Manufacturing Point Source Category" is being published and will be available for purchase from the Government Printing Office, Washington, D.C. 20401 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 418, Fertilizer Manufacturing Point Source Category, to read as set forth below. This final regulation is promulgated as set forth below and shall be effective June 7, 1974.

Dated: March 28, 1974.

RUSSELL E. TRAIN,
Administrator

PART 418—FERTILIZER MANUFACTURING POINT SOURCE CATEGORY

Subpart A—Phosphate Subcategory

Sec.

AUTHORITY: secs. 301, 304(b) and (c), 307(c) of Federal Water Pollution Control Act, as amended (33 U.S.C. 125, 1311, 1314(b) and (c), 1316(b), 1317(c); 86 Stat. 816 et seq. Pub. L. 92-500).

Subpart A—Phosphate Subcategory

§ 418.10 Applicability; description of the phosphate subcategory.

The provisions of this subpart are applicable to 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 purpose of this subpart:

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

(b) The term "within the impoundment," for the purpose of calculating the volume of process waste water which may be discharged, shall mean the water surface area of the impoundment at maximum capacity.

§ 418.12 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:

(a) Subject to the provisions of paragraphs (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 10 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 different between the precipitation for that month that falls within the impoundment and the evaporation within the impoundment for that month, or, if greater, a volume of process waste water equal to the difference between the mean precipitation for that month that falls within the impoundment and the mean evaporation 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).

(d) Any process waste water discharged pursuant to paragraph (c) of this section shall comply with each of the following requirements:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (mg/l)	
Total phosphorus (as P)	70	35
Fluoride	30	15
TSS	50	25
pH	Within the range 8.0 to 9.5.	
	English units (ppm)	
Total phosphorus (as P)	70	35
Fluoride	30	15
TSS	50	25
pH	Within the range 8.0 to 9.5.	

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

(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 25 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 [Reserved]

§ 418.15 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new 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 25 year, 24 hour rainfall event as established by the National Climatic Center, National Oceanic 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.

§ 418.16 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the phosphate 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 where to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 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 as follows: There shall be no discharge of process waste water pollutants.

Subpart B—Ammonia Subcategory

§ 418.20 Applicability; description of the ammonia subcategory.

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

§ 418.21 Specialized definitions.

For the purpose of this subpart:

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

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

§ 418.22 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 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	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.125	0.0625
pH	Within the range 6.0 to 9.0	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.125	0.0625
pH	Within the range 6.0 to 9.0	

§ 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 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	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.05	0.025
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.05	0.025
pH	Within the range 6.0 to 9.0.	

§ 418.24 [Reserved]

§ 418.25 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	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.11	0.055
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.11	0.055
pH	Within the range 6.0 to 9.0.	

§ 418.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the ammonia 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 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 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 418.25; 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 be correspondingly reduced in stringency for that pollutant.

Subpart C—Urea Subcategory

§ 418.30 Applicability; description of the 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:

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

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

§ 418.32 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 setcion, EPA took into account all information it was able to cellect, develop and solicit with respect to factors (such as age and size of plant, raw matrials, 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 aprove 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:

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

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.075	0.0375
Organic nitrogen (as N)	.125	.0625
pH	Within the range 6.0 to 9.0	
	English units (pounds per 1,000 of product	
Ammonia (as N)	0.075	0.0375
Organic nitrogen (as N)	.125	.0625
pH	Within the range 6.0 to 9.0	

(b) The following limitations constitute the maximum permissible discharge for urea manufacturing operations in which urea is prilled:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.1	0.05
Organic nitrogen (as N)	.25	.125
pH	Within the range 6.0 to 9.0	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.1	0.05
Organic nitrogen (as N)	.25	.125
pH	Within the range 6.0 to 9.0	

§ 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 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:

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

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.03	0.015
Organic nitrogen (as N)	.05	.025
pH	Within the range 6.0 to 9.0	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.03	0.015
Organic nitrogen (as N)	.05	.025
pH	Within the range 6.0 to 9.0	

(b) The following limitations constitute the maximum permissible discharge for urea manufacturing operations in which urea is prilled:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.03	0.015
Organic nitrogen (as N)	.075	.0375
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.03	0.015
Organic nitrogen (as N)	.075	.0375
pH	Within the range 6.0 to 9.0.	

§ 418.34 [Reserved]

§ 418.35 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:

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

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.063	0.0325
Organic nitrogen (as N)	.075	.0375
pH	Within the range 6.0 to 9.0	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.063	0.0325
Organic nitrogen (as N)	.075	.0375
pH	Within the range 6.0 to 9.0	

(b) The following limitations constitute the maximum permissible discharge for urea manufacturing operations in which urea is prilled:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.065	0.0325
Organic nitrogen (as N)	.125	.0625
pH	Within the range 6.0 to 9.0	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.065	0.0325
Organic nitrogen (as N)	.125	.0625
pH	Within the range 6.0 to 9.0	

§ 418.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the urea 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 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 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 publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 418.35; 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 in stringency for that pollutant.

Subpart D—Ammonium Nitrate Subcategory

§ 418.40 Applicability; description of the 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 purpose of this subpart:

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

(b) The term "product" shall mean the anhydrous ammonium nitrate content of the compound manufactured.

§ 418.42 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:

(a) The following limitations constitute the maximum permissible discharge for ammonium nitrate manufacturing operations in which ammonium nitrate is produced as an aqueous solution:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.075	0.0375
Nitrate (as N)	.1	.05
pH	Within the range 6.0 to 9.0	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.075	0.0375
Nitrate (as N)	.1	.05
pH	Within the range 6.0 to 9.0	

(b) The following limitations constitute the maximum permissible discharge for ammonium nitrate manufacturing operations in which ammonium nitrate is prilled or granulated:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.2	0.1
Nitrate (as N)	.22	.11
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.2	0.1
Nitrate (as N)	.22	.11
pH	Within the range 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 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:

(a) The following limitations constitute the maximum permissible discharge for ammonium nitrate manufacturing operations in which ammonium nitrate is produced as an aqueous solution:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.015	0.0075
Nitrate (as N)	.025	.0125
pH	Within the range 6.0 to 9.0	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.015	0.0075
Nitrate (as N)	.025	.0125
pH	Within the range 6.0 to 9.0	

(b) The following limitations constitute the maximum permissible discharge for ammonium nitrate manufacturing operations in which ammonium nitrate is prilled or granulated:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.015	0.0075
Nitrate (as N)	.025	.0125
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.015	0.0075
Nitrate (as N)	.025	.0125
pH	Within the range 6.0 to 9.0.	

§ 418.44 [Reserved]

§ 418.45 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:

(a) The following limitations constitute the maximum permissible discharge for ammonium nitrate manufacturing operations in which ammonium nitrate is produced as an aqueous solution:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.05	0.025
Nitrate (as N)	.025	.0125
pH	Within the range 6.0 to 9.0	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.05	0.025
Nitrate (as N)	.025	.0125
pH	Within the range 6.0 to 9.0	

(b) The following limitations constitute the maximum permissible discharge for ammonium nitrate manufacturing operations in which ammonium nitrate is prilled or granulated:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Ammonia (as N)	0.1	0.05
Nitrate (as N)	.05	.025
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
Ammonia (as N)	0.1	0.25
Nitrate (as N)	.05	.025
pH	Within the range 6.0 to 9.0.	

§ 418.46 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the ammonium nitrate 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 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 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 418.45; 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 in stringency for that pollutant.

Subpart E—Nitric Acid Subcategory

§ 418.50 Applicability; description of the 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 purpose of this subpart:

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

§ 418.52 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 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: 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 the application of the best available technology economically achievable.

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

§ 418.54 [Reserved]

§ 418.55 Standards of performance for new sources.

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

§ 418.56 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the nitric acid 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 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 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 as follows: There shall be no discharge of process waste water pollutants.

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