PART 421—NONFERROUS METALS MANUFACTURING POINT SOURCE CATEGORY

Bauxite Refining, Primary Aluminum Smelting, and Secondary Aluminum Smelting Subcategories

On November 30, 1973, notice was published in the Federal Register (38 FR 33170), 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 bauxite refining subcategory, the primary aluminum smelting subcategory, and the secondary aluminum smelting subcategory of the nonferrous metals 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 nonferrous metals manufacturing category of point sources, by amending 40 CFR Ch. I, Subchapter N, Part 421. 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); 304(b), (c), and (d) of the Clean Water Act, as amended, (the Act); 307(a) and (b) of the Water Pollution Control Act, as amended; and (c) and (d) of the Federal Water Pollution Control Act, as amended, (the Act); 307(c) and 307(d) of the Water Pollution Control Act, as amended, (the Act); and 307 of the Federal Water Pollution Control Act, as amended, (the Act). 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 within the bauxite refining subcategory, the primary aluminum smelting subcategory, and the secondary aluminum smelting subcategory of the nonferrous metals manufacturing category of point sources.

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The legal basis, methodology and factual considerations presented in the proposed rulemaking for the bauxite refining subcategory, the primary aluminum smelting subcategory, and the secondary aluminum smelting subcategory were described in detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the proposed rulemaking for the bauxite refining subcategory, the primary aluminum smelting subcategory, and the secondary aluminum smelting subcategory. In addition, the regulations as proposed were supported by four other documents:


Interested persons were invited to participate in the rulemaking by submitting written comments in 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 persons was solicited in the notice of proposed rulemaking. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency’s response thereeto follows.

(a) Summary of major comments. The following responded to the request for written comments which was contained in the preamble to the proposed regulation: Consolidated Aluminum Corporation, Reynolds Aluminum, Ornmet Corporation, Aluminum Company of America, Kaiser Aluminum and Chemicals Corporation, American Smelting and Refining Company, Inc., U.S. Department of Commerce, ESWOIAC, U.S. Department of the Interior, County Sanitation Districts of Los Angeles County, Aluminum Recycling Association, Colorado Department of Public Health, U.S. Water Resources Council, and U.S. Department of Health, Education and Welfare. Each of the comments was carefully reviewed and analyzed. The following is a summary of the significant comments and the Agency’s response to these comments:

(1) A comment was submitted by Kaiser Aluminum Company raising a question concerning the relationship of the proposed guidelines for bauxite refining to the provisions of a consent decree between EPA and the Company dated October 13, 1972. EPA met with representatives of the Company and reviewed the provisions of the consent decree, as well as additional technical and economic information concerning the treatment for the Kaiser plants.

EPA is generally in agreement that the total impoundment technology that is practiced at the bauxite refining subcategory is not consistent with the sand bed filtration system being installed by the Company pursuant to the consent decree. Technical information indicates that zero discharge of all process water pollutants may not be achievable with the sand bed filtration system. However, the possibility of some discharge of recycled liquids and associated wastes was contemplated in the consent decree, which includes a complete procedure for submission and approval of effluent limits for these waste streams.

Consent decrees and permits negotiated in good faith prior to the passage of the Act and issuance of the guidelines continue in effect without regard to the limitations in the guidelines, except where exceptional circumstances have been presented to warrant amendment of a decree or permit. It is the opinion of EPA that no exceptional circumstances have been presented to warrant amendment of this decree through the effluent guidelines process. It has been determined therefore that the guidelines and standards will not apply to the Kaiser plants for the discharges covered by the consent decree.

Since the provisions of the consent decree will govern the establishment of limitations of the effluent discharges from these two plants, it is the determination of the Agency that there is no need to modify the limitations in the guidelines to include effluent limitations data regarding these two plants.

(2) One commenter suggested that the allowable discharges resulting from storm runoff as provided under §§ 421.12, 421.13 and 421.14 of the proposed guidelines for the bauxite refining subcategory should be limited solely to supernatant water so that the discharge of suspended red mud and other pollutants will be minimal.

The three sections presented in the proposed regulations for this subcategory should have stated that the allowable discharge would be the overflow from the impoundment facility. The proposed regulations will be changed to read “* * * there may be discharged from the overflow of a process waste water impoundment * * *.”

(3) Two commenters considered the storm water discharge as provided under §§ 421.12, 421.13 and 421.14 of the proposed regulations for the bauxite refining subcategory to be unreasonable and not amenable to implementation and management.

The three sections presented in the proposed regulations were not intended to allow the discharge of excess rainfall at the end of a calendar month. Discharge can occur from the impoundment area at any time during the calendar month, but records of process waste water effluent volumes, discharge volumes, and precipitation data kept during the calendar month must justify the total excess rain water discharge at the end of that month. Thus, the management and implementation of such an allowable discharge program is not unreasonable.

(4) One commenter stated that storm water runoff should not be considered as a process discharge, resulting from an amendment in the proposed effluent guidelines for the bauxite refining subcategory.

As defined by § 421.11(b), as proposed, "process waste water" means any water which, during the refining process, comes in contact with or is generated from the production process, or is produced from, used as a solvent or reagent in the production process, or contains or is generated by a treatment process, and which is not a product of such process except as provided for a process discharge.
into direct contact with any raw material,... product not used in-or resulting from the manufacture of alumina from bauxite. That segment of storm water runoff which cannot be segregated from process waste water, cannot be considered as process waste water. Obviously, the remaining storm water runoff, because it does not meet the definition of § 421.20, cannot be considered as process waste water. Maximization of storm water runoff segregation will minimize the total process waste water volume.

(3) A comment was received that the entire concept of evaporators to meet the proposed effluent limitations for the bauxite refining subcategory should be deleted. Evaporators are not cost effective, consume precious energy, and produce solid wastes.

Evaporators are currently being used by several domestic bauxite refineries for concentration of spent liquor returning to the digesters from the precipitators. The use of salt-out evaporators is specifically for process waste water and the guidelines as proposed could require evaporators to maintain salt levels low enough to permit reuse of process water by evaporation of purge streams.

 Chloride salts are formed from chloride values introduced at the chlor-alkali facility producing the caustic; sulfate salts are formed from sulfur added to bauxite for zinc precipitation. Methods to minimize chloride introduction and other methods for zinc precipitation should be available shortly. These changes should precede or minimize the use of salt-out evaporators for pollution control.

(6) One commenter felt that the effluent limitations for the bauxite refining subcategory should allow the discharge of barometric condenser water after reducing the pH to 9, if necessary.

On a volumetric basis, barometric condenser water is the largest process waste water stream at a bauxite refining facility. River or pond water at a neutral pH is introduced to the condensers. If either no demisting devices are used or they are used but are not properly operated, caustic values will be entrained into the condenser water. These entrained caustic values alter both the pH and the alkalinity content of the receiving water. Reducing the pH of this water back to within the 5.0 to 9.0 range will precipitate high values of total suspended solids which itself is a process water pollutant.

(7) One commenter suggested that cyanide not be selected as a significant pollutant for the primary aluminum smelting subcategory.

Cyanide was found in the effluents from some primary aluminum smelters in 1972. Concentration and treatment technology for effective cyanide removal is currently available at reasonable cost. However, further data have shown that typical cyanide concentrations are considered. A process by which the cyanide is found in these same effluents are too small in magnitude to be significantly reduced by current technology. Therefore, cyanide will not be deleted from the list of significant pollutants for this subcategory.

(8) Two commenters stated that dumping or land filling sludges produced as a result of some liquid effluent treatment methods may require an adequate solution if these sludges contain solid fluorides, such as CaF₂ or cryolite.

The removal of metals from waste waters utilizing methods which produce a sludge which requires adequate precautions to prevent contamination of subsurface waters. It is expected that the guidelines will focus attention on the problem of solids disposal so that satisfactory solutions will be found. Chemical precipitation with solids separation is accepted as the best practicable control technology for this industry. Soluble metal salts produced by concentration on recovery techniques such as evaporation pose a greater environmental hazard than the metallic hydroxides resulting from chemical precipitation. An environmentally acceptable solution to this problem, which is not peculiar to this industry, is expected prior to the deadline for application of the new source performance technology economically achievable in 1983.

(9) One responder to the Federal Register request for comments felt that the proposed single day maximum effluent limitations for the primary aluminum smelting subcategory were improperly developed. The commenter argued that limits are arbitrary and do not allow for process upset conditions, and operational flexibility. It was also contended that these limitations are not supported by field data at even exemplary plants.

Data from nine plants indicate that the ratio of maximum discharge to average discharge for fluoride, suspended solids, and oil and grease is less than 2. The effluent limitations conservatively establish the ratio of single day maximum to 30-day maximum at 5. EPA believes this ratio allows flexibility to account for conditions such as process upsets. Run off is not considered a process waste water source.

(10) Two commenters felt that the proposed new source performance standards for the primary aluminum smelting subcategory do not take into account the potential of on-site power, when using direct or horizontal direct chill casting. New technologies which are being used or are planned for use at new primary aluminum smelters include dry primary and secondary scrubbing; air-cooled, solid state rectifiers, and nonwater molten sodium fluoride salt scrubbing in cell rooms can be maintained by the installation of highly efficient hooding, by operating with computer head of the heat available to foundry techniques, and by employing well-designed damper and draft systems. These new technologies have indicated, by means of current atmospheric emission test data, that underground or on-site power, when used, will not be necessary for new sources to meet stringent air pollution regulations. Also, the new technologies will produce the use of water in the processes and techniques, and therefore, because of limited water use, total impoundment will not be necessary.

(11) One comment received was that the new source performance standards for the primary aluminum smelting subcategory provide tighter restrictions on fluorides and suspended solids than are required by the current 1972 proposed best available technology economically achievable guidelines. It was argued that the new source performance standards should be the same as the proposed 1983 guidelines.

As stated on page 134 of the Development Document for the primary aluminum smelting subcategory, the new source performance standards are lower for fluoride and suspended solids than those applicable to existing sources by 1983 because of the availability of new sources of dry scrubbing for potline air.

Evaporators are currently being used for recycling of subsurface wastes. It is expected argued that the new source performance standards may not be an adequate freedom to select unit processes which minimize the use of water.

(12) Another comment was made that there were no current trends toward dry scrubbing at existing primary aluminum facilities.

The opposite of this statement is true. Numerous primary aluminum smelters. Chloride values are used at the primary aluminum smelting subcategory would not be feasible when direct chill or horizontal direct chill casting is practiced.

Zero discharge of process pollutants from the cast house would be an unrealistic goal.

Zero discharge from the cast house is not required by the guidelines. Some plants may choose to pursue zero discharge of cast house water as the means to achieve no discharge of process waste water pollutants. The guidelines do not require process modifications that would be costly to implement.

(14) One commenter requested clarification as to the applicability of the primary aluminum smelting subcategory effluent limitations. This commenter felt that additional discharge of process pollutants should be allowed for such operations as cryolite recovery from used potlining, hydrofluoric acid production, and the production of on-site power, when such operations are conducted at the primary aluminum smelter exclusively for the purpose of producing an end product to be used in the manufacture of aluminum. Also, process smelters cast other than primary metal produced directly from alumina, an additional pollution allowance was suggested, based upon actual casting rate. The effluent limitations apply to process waste water streams as defined in the proposed regulations. Ancillary operations not defined in § 421.20 are not covered by these guidelines.

(15) A comment was received stating that the effluent limitations for the secondary aluminum smelting subcategory
should allow a discharge of a bleed stream from the metal cooling water recirculation system. The commenter supported his position by referring to a statement made in the Development Document for this subcategory.

Alternatives, other than the discharge of a salt bleed stream, available to the smelter if a bleed stream exists, this effluent can be used to flush hot ingots. During flashing, the contained salts will be deposited as a very thin layer on the ingot surface and will not alter the quality of this product. This procedure is practiced by several existing facilities within this subcategory. Another alternative is air cooling. Evaporation is a third, and less likely, alternative. The statement made in the Development Document for this subcategory will be corrected.

(18) One commenter felt that evaporation of the bleed from recirculation systems to achieve compliance with the "no discharge" secondary aluminum smelting subcategory is neither a cost nor an energy effective solution. Evaporation of the bleed from recirculation systems to achieve no discharge of process wastewater is not required. It is one method to achieve the effluent limitations. The guidelines are developed to allow maximum flexibility to the smelter. Impoundment also may be feasible for some smelters.

(19) One response party suggested that COD be deleted from the proposed list of significant pollutants for the secondary aluminum smelting subcategory. Sufficient COD to require limitation was found in the effluents from chlorine fume scrubbing operations. Data indicate that treatment reduces COD to levels proposed in the regulations.

(20) Two commenters stated that the cost figures and the economic impact conclusions reported in the proposed regulation for the aluminum smelting subcategory cannot be confirmed. The cost and economic impact conclusions were based on the best data available and reflected the best practicable technology currently available. Additional data were solicited from the industry in the preamble to the proposed regulations.

(21) Two commenters felt that the intention of the proposed guidelines to prohibit the discharge of only specified pollutants without regard to the discharge of other unspecified pollutants is not clear.

The pollutants subject to effluent limitations are those contained in the process waste waters which were identified as "significant." The significant pollutants and the corresponding effluent limitations appear in the appropriate sections of the regulation. If a pollutant does not appear with a corresponding effluent limitation, it is not subject to control by the regulations.

(22) Several commenters stated that the data establishing effluent limitations are in some cases on a gross basis and in others on a net basis.

The resultant limitations are presented on an absolute basis. The use of such limitations is appropriate since the concentration of a pollutant remaining after a given treatment is relatively independent of the concentration in the waste or the source of the pollutant.

(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 the EPA, the following significant changes have been made in the regulation:

(1) Paragraph (b) of §§421.12, 421.13, and 421.14 has been modified by adding "the overflow of" to "there may be discharge from the overflow of a process wastewater impoundment." The modified phrase "there may be discharged from the overflow of a process wastewater impoundment" now stipulates that discharge resulting from excess rainfall is limited solely to supernatant water.

(2) Cyanide as well as oil and grease have been deleted from the proposed list of significant pollutants for the primary aluminum smelting subcategory. Oil and grease have been deleted from the proposed list of significant pollutants for the secondary aluminum smelting subcategory. These deletions were made since data have shown that typical concentrations of both cyanide and oil and grease in the effluents of these subcategories are too small in magnitude to be significantly reduced by current technology.

(3) Section 304(b) (1) (B) of the Act provides for "guidelines" to implement the uniform national standards of pollution for each point source category. Through 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 recognizing the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provisions of the effluent limitations guidelines were applicable to different discharge points, discharge positions, or to industry segments which terminate 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 effluent limitation guidelines now being promulgated are expected to have only minimal effects on the aluminum industry. In the primary sector, no price increases are expected. In the secondary sector, no price increases are anticipated. In 1977 requirements are expected only in 1983 and in 1983 and in the case of wet dross milling operations. The percent of total aluminum production capacity and represent about 160 employees. In the remaining secondary operations, no closings are anticipated and price increases are expected to be less than 1 percent.

For seven of the industry's nine bauxite refining plants, the majority of the costs for meeting the 1977 guidelines has already been incurred. Any additional costs are expected to range from zero to less than 1.5 percent of the sale value of alumina (0.5 percent of the sale value of aluminum). For the remaining two plants, both technical and economic analysis have indicated that a requirement of no discharge of process waste water pollutants is not practical. At these two plants, the 1977 requirements of no discharge of process waste water pollutants is to be applied only to those process waste waters discharged covered by a consent decree, which was agreed upon for these two plants in October of 1972. The consent decree contemplates the possible need for a discharge and includes a complete procedure for establishing effluent limitations for these plants.

The 1983 requirement for these plants is still no discharge of process waste water pollutants; however, the additional time is expected to be sufficient to allow the technical and economic problems associated with no discharge to be solved.

(d) Cost-benefit analyses. The detrimental effects of eventual discharge of process waste waters now discharged by point sources within the aluminum segment of the nonferrous metals manufacturing point source category are discussed. In section VI of each respective report entitled "Development Document for Effluent Limitations Guidelines for the Bauxite Refining Subcategory of the Alum-
Solid waste control. Solid waste control must be considered. The waterborne wastes from the nonferrous metals 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 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 would allow the elimination or reduction of the discharge of pollutants.


(g) Final rulemaking. In consideration of the foregoing, 40 CFR Ch. I, Subchapter N is hereby amended by adding a new Part 421, entitled "Nonferrous Metals Manufacturing Point Source Category," to read as set forth below. This final regulation is promulgated as set forth below and effective June 3, 1974.

Dated: March 26, 1974.

JOHN QUARLES, Acting Administrator.

Subpart A—Bauxite Refining Subcategory

§ 421.10 Applicability; description of the bauxite refining subcategory.

§ 421.11 Specialized definitions.

§ 421.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology economically achievable.

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

§ 421.14 [Reserved.

§ 421.15 Standards of performance for new sources.

§ 421.16 Pretreatment standards for new sources.

Subpart B—Primary Aluminum Smelting Subcategory

§ 421.20 Applicability; description of the primary aluminum smelting subcategory.

§ 421.21 Specialized definitions.

§ 421.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
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 facility 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 or discharger may establish such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) Subject to the provisions of paragraph (b) of this section, the following limitations shall be established: The quantity 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 to navigable waters.

(b) During any calendar month there may be discharged from the overflow of 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 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, 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.

§ 421.14 [Reserved]

§ 421.15 Standards of performance for new sources.

(a) Subject to the provisions of paragraph (b) of this section, the following standards of performance shall be established: There shall be no discharge of process waste water pollutants to navigable waters.

(b) During any calendar month there may be discharged from the overflow of 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 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, 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.

§ 421.16 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the aluminum refining subcategory, which is a user of a publically owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131 of this chapter the pretreatment standard for inorganic pollutants introduced to a publicly owned treatment works shall be the standard of performance for new sources specified in § 421.15: 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 incompatable pollutant, the pretreatment standard applicable to waste of such treatment works shall be the standard specified in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

Subpart B—Primary Aluminum Smelting

§ 421.20 Applicability; description of the primary aluminum smelting subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of aluminum from bauxite by use of the Hall-Heroult process.

§ 421.21 Specialized definitions.

For the purpose of this subpart:

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

(b) The term "product" shall mean hot aluminum metal.

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

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and consult 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, the subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facility 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 or discharger may establish such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(b) Subject to the provisions of paragraph (b) of this section, the following standards of performance shall be established: There shall be no discharge of process waste water pollutants to navigable waters.
specify other limitations, or initiate proceedings to revise these regulations.

(b) 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:

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<tr>
<th>Effluent characteristics</th>
<th>Effluent limitations</th>
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<tr>
<td></td>
<td>Maximum for any 1 day</td>
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<td></td>
<td>Metric units (kilograms per 1,000 kg of product)</td>
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<tr>
<td>Fluoride</td>
<td>2.0</td>
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<tr>
<td>pH</td>
<td>Within the range 6.0 to 9.0</td>
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<td>pH</td>
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§ 421.23 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, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

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<tr>
<td>pH</td>
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</tr>
<tr>
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<td>pH</td>
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§ 421.24 [Reserved]

§ 421.25 Standards of performance for new sources.

The following standards of performance for new sources 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:

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</tr>
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§ 421.26 Pretreatment standards for new sources.

The pretreatment standards under section 301(c) of the Act for a source within the primary aluminum smelting subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 301 of the Act if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128, of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 128.131 of this chapter, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in § 421.23. 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 standards applicable to uses of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

Subpart C—Secondary Aluminum Smelting Subcategory

§ 421.30 Applicability; description of the secondary aluminum smelting subcategory.

The provisions of this subpart are applicable to discharges resulting from the secondary aluminum smelting subcategory. There shall be no discharge of process waste water pollutants to navigable waters.

§ 421.31 Specialized definitions.

For the purpose of this subpart:

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

(b) The term “product” shall mean hot aluminum recovered.

§ 421.32 Effluent limitations guidelines representing the degree of effluent reduction available 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, 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 shall 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, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, 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 to navigable waters.

(b) 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 and which uses water for metal cooling, after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

(c) 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 and which uses aluminum fluors in its magnesium removal process ("demagging process"), after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.
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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 practical control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

#### § 421.34 [Reserved]

#### § 421.35 Standards of performance for new sources.

(a) 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 to navigable waters.

(b) Application of the factors listed in section 306(b) of the Act may require variation from the standard of performance set forth in this section for any point source subject to such standard of performance and which uses chlorine in the magnesium removal process ("de-magnaging" process). If variation is determined to be necessary for any such source, the discharge of process waste water pollutants shall be allowed from the magnesium removal process only, and such source shall be subject to effluent limitations no less stringent than those required by paragraph (c), § 421.32.

#### § 421.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the secondary aluminum smelting subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in § 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 § 421.35: 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, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

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