ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 411]

CEMENT MANUFACTURING POINT SOURCE CATEGORY

Effluent Limitations Guidelines for Existing Sources and Standards of Performance and Pretreatment Standards for New Sources

Notice is hereby given that effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources set forth in tentative form below are proposed by the Environmental Protection Agency (EPA) for the cement manufacturing category of point sources pursuant to sections 301, 304 (b) and (c), 306(b) and 307(c) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316(b) and 1317(c); 86 Stat. 816 et seq.; P.L. 92-500) (the "Act").

(a) Legal authority:

(1) Existing point sources:

Section 301(b) of the act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of the Act. Section 301(b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of best available technology economically achievable which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b) to the Act.

Section 304(b) of the Act requires the Administrator to publish regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available and the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods and other alternatives. The regulations proposed herein set forth effluent limitations guidelines, pursuant to section 304(b) of the Act, for the cement manufacturing category.

(2) New sources:

Section 306 of the Act requires the achievement by new sources of a Federal standard of performance providing for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

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

Section 307(c) of the Act requires the Administrator to promulgate pretreatment standards for new sources at the same time that standards of performance for new sources are promulgated pursuant to section 306. Sections 411.15 and 411.25 proposed below provides pretreatment standards for new sources within the cement manufacturing category.

Section 304(c) of the Act requires the Administrator to issue to the States and appropriate water pollution control agencies information on the processes, procedures or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under Section 306 of the Act. The development document described further below in section (b)(2) of this preamble provides, pursuant to section 304(c) of the Act, preliminary information on such processes, procedures or operating methods.

(3) Thermal Discharges section 316(a) of the Act provides a means for further consideration of thermal effluent limitations required under sections 301 and 306 of the Act. Section 316(a) states that with respect to any point source subject to the provisions of sections 301 or 306, whenever the owner or operator of any such source, after opportunity for public hearing, can demonstrate to the satisfaction of the Administrator (or, if appropriate, the State) that any effluent limitation proposed for the control of the thermal component of any discharge from such source will require effluent limitations more stringent than necessary to assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made, the Administrator (or, if appropriate, the State) may impose a different effluent limitation for the thermal component of the discharge than would ordinarily be required under sections 301 and 306 of the Act. Effluent limitations imposed under section 316(a) must assure the protection and propagation of a balanced indigenous population of shellfish, and wildlife in and on the body of water into which the discharge is to be made.

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

(1) *General methodology.*—The effluent limitations guidelines and standards of performance proposed herein were developed in the following manner. The point source category was first studied for the purpose of determining whether separate limitations and standards are appropriate for different segments within the category. This analysis included a determination of whether differences in raw material used, product produced, manufacturing process employed, age, size, waste water constituents and other factors require development of separate limitations and standards for different segments of the point source category. The raw waste characteristics for each such segment were then identified. This included an analysis of: (1) the source, flow and volume of water used in the process employed and the sources of waste and waste waters in the plant; and (2) the constituents of all waste water. The constituents of the waste waters which should be subject to effluent limitations guidelines and standards of performance were identified.

Next, the control and treatment technologies existing within each segment were identified. This included an identification of each distinct control and treatment technology, including both in-plant and end-of-process technologies, which are existent or capable of being designed for each segment. It also included an identification of, in terms of the amount of constituents and the chemical, physical, and biological characteristics of pollutants, the effluent level resulting from the application of each of the technologies. The problems, limitations and reliability of each treatment and control technology were also identified. In addition, the non-water quality environmental impact, such as the effects of the application of such technologies upon other pollution problems, including air, solid waste, noise and radiation were identified. The energy requirements of each control and treatment technology were determined as well as the cost of the application of such technologies.

The information, as outlined above, was then evaluated in order to determine what levels of technology constitute the "best practicable control technology currently available," "best available technology economically achievable" and the "best available demonstrated control technology, processes, operating methods, or other alternatives." In identifying such technologies, various factors were considered. These included the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements) and other factors.

The data upon which the above analysis was performed included Refuse Act Permit Applications, EPA sampling and inspections, consultant reports, and industry submissions.

The pretreatment standards proposed herein are intended to be complementary

to the pretreatment standards proposed for existing sources under Part 128 of 40 CFR. The basis for such standards is set forth in the FEDERAL REGISTER of July 19, 1973, 38 FR 19236. The provisions of Part 128 are equally applicable to sources which would constitute "new sources" under section 306 if they were to discharge pollutants directly to navigable waters, except for § 128.133. That section provides a pretreatment standard for "incompatible pollutants" which requires application of the "best practicable control technology currently available," subject to an adjustment for amounts of pollutants removed by the publicly owned treatment works. Since the pretreatment standards proposed herein apply to new sources, §§ 411.15 and 411.25 below amend § 128.133 to require application of the standard of performance for new sources rather than the "best practicable" standard applicable to existing sources under sections 301 and 304(b) of the Act.

(2) *Summary of conclusions with respect to cement manufacturing category.*—General information was obtained on all plants and detailed information was collected for 132 (80 percent) of the 166 domestic cement plants identified as currently in operation. The sources and type of information consisted of: (1) Applications to the Army Corps of Engineers for Permits to Discharge under the Refuse Act Permit Program (RAPP) were obtained for 88 plants and provided data on the characteristics of intake and effluent waters, water usage (including flow diagrams in many cases), waste water treatment and control practices employed, daily production, and raw materials used; (2) a questionnaire to nine companies covering 64 plants (including 35 plants for which RAPP applications were not available) provided data on raw material analysis, dust collection and disposal methods, alkali content of the dust, plant age and year of latest modification, detailed water usage, fuels, and treatment and control methods and costs; (3) on-site inspections of 15 plants provided flow diagrams, detailed information on water management practices, and control and treatment methods, equipment, and costs; and (4) other sources of information included EPA technical reports, trade literature, personal and telephone interviews and meetings with regional EPA personnel, industry personnel, and consultants.

This information was compiled by data processing techniques and analyzed for the following: (1) identification of distinguishing features that could potentially provide a basis for subcategorization of the industry (*e.g.*, method of dust collection and disposal, type of process, raw materials, and plant size and age); (2) determination of the water usage and waste characteristics for each of the subcategories including the volume of water used, the sources of contamination in the plant, and the type and quantity of constituents in the waste waters; and (3) identification and determination of those waste water constituents which are characteristic of the industry and subject to effluent limitations guidelines and standards.

The cement manufacturing industry was segmented into two subcategories based upon the method for kiln dust collection and disposition and resulting waste water characteristics. The subcategories are: leaching plants and nonleaching plants. The scope of these subcategories is defined in §§ 411.10 and 411.20 below. The leaching category includes plants in which water comes into contact with kiln dust as an integral part of the process or in which wet scrubbing of kiln stack emissions is employed. Raw waste water loads and necessary treatment methods and technology are substantially different for plants in the leaching subcategory. Factors such as age, size of plant, raw materials, fuel used, process employed, waste water constituents, waste control technologies, and plant location further substantiated the subcategorization of the cement manufacturing industry in this manner for the purpose of the application of effluent limitations guidelines and standards of performance. The pollutants contained in raw waste water resulting from cement manufacturing are principally dissolved solids (potassium and sodium hydroxide, chlorides and sulfates), suspended solids (calcium carbonate) and waste heat.

There are relatively few operations in cement manufacturing where the addition of pollutants to the water used is inherently associated with the use of that water. For nonleaching plants, pollution generally results from practices that allow materials to come in contact with the water. Pollutant levels at these plants can be greatly reduced or eliminated by suitable in-plant control measures that prevent wastes from entering the water or by more extensive reuse and recycling of water that may become contaminated.

For the plants in the leaching subcategory, wastes are necessarily introduced into the water and recycling is not feasible. Thus, for these plants, treatment is required to reduce the pollutant loading.

The main control and treatment methods for the cement industry involve recycle and reuse of wastewater. The devices employed include cooling towers or ponds, settling ponds, containment ponds, and clarifiers. Cooling towers or ponds are used to reduce the temperature of waters used to cool process equipment. Settling ponds are used primarily to reduce the concentration of suspended solids. Containment ponds are used to dispose of waste kiln dust in the nonleaching plants. Clarifiers are mainly used to separate solids in dust-leaching plants. With the exception of plants in the leaching subcategory, most cement plants can achieve virtually complete reuse of wastewater with existing state-of-art technology.

Five alternative control and treatment technologies and the attendant costs have been identified for the cement manufacturing category: two for the nonleaching subcategory and three for the leaching subcategory.

The first alternative for the nonleaching subcategory involves recycling and reuse of all water used in manufacturing and containment or treatment of runoff from kiln-dust piles.

This alternative will result in essentially no discharge of pollutants. The investment cost of implementing this technology at a typical plant will be about $200,000 including a cooling tower ($94,000) or spray pond ($91,000), the necessary piping ($76,000), and containment dikes for kiln-dust piles ($35,000). If an evaporative cooling pond is used, it would cost about $160,000 including piping, but not including land cost.

The operating costs of this alternative will range from about $20,000 to $30,000 per year including maintenance, sludge removal, chemicals, labor cost of power, and taxes and insurance. Power costs are limited to pumping and amount to $13,000 per year.

The second alternative involves limited water reuse and in-plant controls.

This alternative consists of isolation of cooling streams from possible contamination, reuse of cooling water in feed slurry (wet-process plants), retention and reuse or treatment of miscellaneous wastewater (e.g. truck washing) and containment or treatment of runoff from dust piles and would also result in no discharge of pollutants in manufacturing effluents.

Cost of implementing this alternative will vary somewhat within the industry but on the average will be comparable to that for the first alternative.

The first alternative for leaching plants involves the segregation and treatment of the leachate stream.

The nonleaching streams of leaching plants are treated like those of nonleaching plants under this alternative. Treatment of the leachate stream consists of neutralization of the leachate with stack gases, followed by secondary sedimentation to remove both the residual suspended solids that were present in the leachate and the suspended solids (calcium carbonate) created by the neutralization with carbon dioxide.

This alternative will result in an acceptable pH of 9.0, and a suspended solids level of not more than 0.15 kg/kkg (0.30 lb/ton) of dust leached. Dissolved solids will remain at about their present level.

The cost of implementing this alternative will be about $425,000 including $165,000 for the control of nonleaching streams and the cost of installing a stack-gas neutralization system and a clarifier ($260,000). Operating costs will range from about $35,000 to $45,000 per year.

Implementation of this alternative will result in essentially no discharge of pollutants.

The third alternative for the leaching subcategory would be the abandonment of existing leaching operations.

Under this alternative, plants that presently each kiln dust would abandon the practice and adopt either the first or second alternative for nonleaching plants which will result in essentially no discharge of pollutant. The cost of dust

disposal is estimated to be $0.50 per ton (including hauling and piling costs). The value of wasted dust would be about $2.00 per ton (based upon cost to formulate and grind an equivalent amount of raw ingredients). Therefore, the annual cost of wasting 200 tons per day of dust that is presently leached would be $165,000.

Non-water quality environmental impacts due to the effects of the control and treatment technologies described are minimal. Some additional solid wastes will be generated by increased use of sedimentation, but the amount will be quite small compared to the larger quantity of kiln dust normally wasted. The much increased cost of dust leaching may discourage its practice at some plants and thereby add to the solid waste load and create localized dust problems on windy days. However, there are techniques available such as latex coating or water spraying to reduce this problem.

Because of the large energy requirement at a cement plant, about 1.25 million kg cal (5 million BTU) in fuel and about 120 kwhr of electric power per metric ton, the added power needed to operate the recycling systems is small (estimated to be less than 5.0 percent of the total energy requirements) in relation to the total energy requirements of a plant.

The cement manufacturing industry is successfully practicing recycling and waste water reuse at a significant number of non-leaching plants (using the first and second alternative described above). EPA has concluded that the effluent quality representing the degree of effluent reduction obtainable through the application of the best practicable control technology currently available for plants in the non-leaching subcategory is essentially no discharge of waste waters to navigable water as defined in § 411.12 below.

For plants in the leaching subcategory, EPA has concluded that the best practicable control technology currently available is neutralization to reduce alkalinity and chemical treatment and sedimentation to reduce suspended solids (the first alternative described above). The degree of effluent reduction attainable through application of best practicable control technology currently available is set forth in § 411.12 below.

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

(c) Summary of public participation:

Prior to this publication, the agencies and groups listed below were consulted with respect to the development of the effluent limitations guidelines and standards of performance for the cement manufacturing industry category: (a) Effluent Standards and Water Quality Information Advisory Committee (established under section 515 of the Act); (b) all interested State and U.S. Territory Pollution Control Agencies; (c) Ohio River Valley Sanitation Commission; (d) New England Interstate Water Pollution Control Commission; (e) Delaware River Basin Commission; (f) Hudson River Sloop Restoration, Inc.; (g) Conservation Foundation; (h) Portland Cement Association; (i) Environmental Defense Fund, Inc.; (j) Natural Resources Defense Council; (k) The American Society of Civil Engineers; (l) Water Pollution Control Federation; (m) National Wildlife Federation; (n) The American Society of Mechanical Engineers; (o) U.S. Department of Commerce; (p) Water Resources Council; and (q) the U.S. Department of the Interior.

The primary issues raised in the development of these proposed effluent limitations guidelines and standards of performance and the treatment of these issued herein are as follows: (1) Industry was concerned that the standards for suspended solids would exceed the capability of the treatment systems following leaching to reduce suspended solids. To determine the degree to which the standard for leaching plants would affect the treatability of suspended solids, values of: 120,000 gallons per day flow in the leaching stream; 208 tons per day of dust leached; and a dust/water ratio of 0.416 was used to calculate a concentration of 44 ppm. Using the same dust/water ratio and flow values and the mass value of 0.30 lb/ton of dust leached, a concentration of 62.5 ppm was established. Both the 44 ppm and the 62.5 ppm values are well above the minimal concentration values to obtain effective suspended solids removal in a properly designed treatment system. (2) Industry was concerned that dikes and containment basins might not be able to prevent runoff from kiln dust and materials storage piles during hurricanes and unusual storm conditions. It is the agency's intention that the dikes and containment ponds should be designed for a 10 year, 24 hour rainfall event. (3) One company in the industry objected to the standard of essentially no discharge on the basis that this would entail a burdensome cost for pumping recycling water. At least 20 percent of the plants in the industry are currently achieving the essentially no discharge standard. (4) The Natural Resources Defense Council questioned the rationale for excluding iron and aluminum as pollutants. The agency's data shows that iron and aluminum are present, if at all, in negligible amounts (0.000 to 0.001 lb/ton of product produced). (5) The Natural Resources Defense Council suggested that the Patzias process for potassium recovery be studied further for possible application in industry to recover potassium as a by-product of kiln dust. The updated costs (from 1957 to 1971) indicate a recovery cost of about $93/ton; the market price of potassium from other commercial sources at present is between $30 and $50/ton. (6) The Natural Resources Defense Council also was concerned that electrodialysis technology might be available for 1977 rather than for 1983 as the agency recommends. The agency's best engineering judgment indicated that electrodialysis technology can be adapted to fill the requirements of leachate demineralization and recycle; but, the operating parameters will have to be thoroughly outlined so that the plants in question can decide which course to pursue. A development program is likely to take more than a year thus, reducing lead time for selection and installation of equipment. In addition, the 1983 deadline provides the time necessary to evaluate other treatment methods that are being used or developed for related problems in other industries. (7) Industry requested that plants that use wet dust disposal should be grouped with leaching plants instead of with non-leaching plants. The agency's best judgement is that alternative material transfer methods, air conveying or hauling, are available to the manufacturer which do not pose as great a threat for pollutant discharge as wet disposal methods. Since the manufacturer has the option of an alternative method, plants currently using wet disposal systems should be grouped in the nonleaching subcategory.

Interested persons may participate in this rulemaking by submitting written comments in triplicate to the EPA Information Center, Environmental Protection Agency, Washington, D.C. 20460. Attention: Mr. Philip B. Wisman. Comments on all aspects of the proposed regulations are solicited. All comments received on or before October 9, 1973, will be considered.

Dated: August 31, 1973.

JOHN QUARLES,
Acting Administrator.

PART 41—EFFLUENT LIMITATIONS GUIDELINES FOR EXISTING SOURCES AND STANDARDS OF PERFORMANCE AND PRETREATMENT STANDARDS FOR NEW SOURCES FOR THE CEMENT MANUFACTURING CATEGORY OF POINT SOURCES

Subpart A—Nonleaching Subcategory

Sec.

Subpart A—Nonleaching Subcategory

§ 411.10 Applicability; description of nonleaching subcategory.

The provisions of this subpart are applicable to discharges resulting from the process in which several mineral ingredients (limestone or other natural sources of calcium carbonate, silica, alumina, and iron together with gypsum) are used in the manufacturing of cement and in which kiln dust is not contacted with water as an integral part of the process and water is not used in wet scrubbers to control kiln stack emissions.

§ 411.11 Specialized definitions.

For the purpose of this subpart: The following definitions apply in addition to, or instead of the general definitions set forth in Part 401, 40 CFR:

(a) For the purposes of this subpart, the following abbreviations shall have the following meaning: (1) kg shall mean kilogram(s); (2) kkg shall mean 1,000 kilograms; and, (3) lb shall mean pound(s).

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

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

Effluent characteristic	*Effluent limitation*
Total suspended nonfilterable solids.	Maximum for any 1-day period shall not exceed 0.005 kg/kkg product cement.
pH	Not to exceed 6.0 to 9.0.
Temperature	Not to exceed 3° C rise above inlet temperature.

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

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

Effluent characteristic	*Effluent limitation*
Total suspended nonfilterable solids.	Maximum for any 1-day period shall not exceed 0.005 kg/kkg product cement.
pH	Not to exceed 6.0 to 9.0.
Temperature	Not to exceed 3° C rise above inlet temperature.

§ 411.14 Standards of performance for new sources.

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

Effluent characteristic	*Effluent limitation*
Total suspended nonfilterable solids.	Maximum for any 1-day period shall not exceed 0.005 kg/kkg product cement.
pH	Not to exceed 6.0 to 9.0.
Temperature	Not to exceed 3° C rise above inlet temperature.

§ 411.15 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the nonleaching subcategory of sources as defined in § 411.10 of this subpart A (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to navigable waters), shall be the standards set forth in Part 128, 40 CFR, except that for the purposes of this section, § 128.133, 40 CFR, 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 by a major contributing industry shall be the standard of performance for new sources specified in § 411.14: *Provided*, That if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall be correspondingly reduced for that pollutant."

Subpart B—Leaching Subcategory

§ 411.20 Applicability; description of leaching subcategory.

The provisions of this subpart are applicable to discharges resulting from the process in which several mineral ingredients (limestone or other natural sources of calcium carbonate, silica, alumina, and iron together with gypsum) are used in the manufacturing of cement and in which kiln dust is contacted with water as an integral part of the process or water is used in wet scrubbers to control kiln stack emissions.

§ 411.21 Specialized definitions.

For the purpose of this subpart: The following definitions apply in addition to, or instead of, the general definitions set forth in Part 401, 40 CFR:

(a) For the purposes of this subpart, the following abbreviations shall have the following meaning: (1) kg shall mean kilogram(s); (2) kkg shall mean 1,000 kilograms; and, (3) lb shall mean pound(s).

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

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

Effluent characteristic	*Effluent limitation*
Total suspended nonfilterable solids.	Maximum for any 1-day period shall not exceed 0.15 kg/kkg (0.30 lb/ton) of dust leached.
pH	Not to exceed 6.0 to 9.0.
Temperature	Not to exceed 3° C rise above inlet temperature.

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

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

Effluent characteristic	*Effluent limitation*
Total suspended nonfilterable solids.	Maximum for any one-day period shall not exceed 0.005 kg/kkg (0.01 lb/ton) product cement.
Total dissolved solids.	Maximum for any one-day period shall not exceed 0.005 kg/kkg (0.01 lb/ton) of product cement.
pH	Not to exceed 6.0 to 9.0.
Temperature	Not to exceed 3° C rise above inlet temperature.

§ 411.24 Standards of performance for new sources.

The following table sets forth the quantity or quality of pollutant effluent characteristics or properties which may be discharged after application of the standards of performance for new sources subject to the provisions of this subpart:

Effluent characteristic	*Effluent limitation*
Total suspended nonfilterable solids.	Maximum for any one-day period shall not exceed 0.15 kg/kkg (0.30 lb/ton) of dust leached.
pH	Not to exceed 6.0 to 9.0.
Temperature	Not to exceed 3° C rise above inlet temperature.

§ 411.25 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the cement manufacturing industry leaching subcategory of sources as defined in § 411.20 (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to navigable waters), shall be the standards set forth in Part 128, 40 CFR, except that for the purposes of this section, § 128.133, 40 CFR 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 by a major contributing industry shall be the standard of performance for new sources specified in § 411.12: *Provided*, That if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall be correspondingly reduced for that pollutant."

[FR Doc.73-18868 Filed 9-6-73;8:45 am]

[40 CFR Part 412]

FEEDLOTS CATEGORY

Effluent Limitations Guidelines for Existing Sources and Standards of Performance and Pretreatment Standards for New Sources

Notice is hereby given that effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources set forth in tentative form below are proposed by the Environmental Protection Agency ("EPA") for the feedlots category of point sources pursuant to sections 301, 304(b) and (c), 306(b) and 307(c) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311, 1314(b) and (c) and 1316, 1316(b) and 1317(c), 86 Stat. 816 et seq.) (the "Act").

(a) Legal authority:

(1) Existing point sources:

Section 301(b) of the Act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of the Act. Section 301(b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources other than publicly owned treatment works, which require the application of best available technology economically achievable which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b) to the Act. Section 304(b) of the Act requires the Administrator to publish, within one year of enactment of the Act, regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available and the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods and other alternatives.

(2) New sources:

Section 306 of the Act requires the achievement by new sources of a Federal standard of performance providing for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

Section 306(b)(1)(B) of the Act requires the Administrator to publish a list of categories of sources within 90 days after the date of enactment of the Act (October 18, 1972). Within one year after a category of sources is included on the list, the Administrator is required to propose regulations establishing Federal standards of performance for new sources within such category. The Administrator published in the FEDERAL REGISTER of January 16, 1973, (38 FR 1624) a list of 27 source categories, including the feedlots source category. The regulations proposed herein set forth the standards of performance applicable to new sources within the feedlots source category.

Section 307(c) of the Act requires the Administrator to promulgate pretreatment standards for new sources at the same time that standards of performance for new sources are promulgated pursuant to section 306. Sections 412.15 and 412.25 proposed below provide pretreatment standards for new sources within the feedlots category.

Section 304(c) of the Act requires the Administrator to issue to the States and appropriate water pollution control agencies information on the processes, procedures or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of the Act. The Development Document referred to below provides, pursuant to section 304(c) of the Act, preliminary information on such processes, procedures or operating methods.

(b) Summary and basis of proposed effluent limitations guidelines and standards of performance.

(1) General methodology:

The effluent limitations guidelines and standards of performance proposed herein were developed in the following manner. The point source category was first studied for the purpose of determining whether separate limitations and standards are appropriate for different segments within the category. This analysis included a determination of whether differences in raw material used, product produced, manufacturing process employed, age, size, waste water constituents and other factors require development of separate limitations and standards for different segments of the point source category. The raw waste characteristics for each such segment were then identified. This included an analysis of: (1) source, flow and volume of water used in the process employed and the sources of waste and waste waters in the operation; and (2) the constituents (including thermal) of all waste waters, including the toxic constituents and other constituents which result in taste, odor and color in the water or aquatic organisms. The constituents of the waste waters which should be subject to effluent limitations guidelines and standards of performance were identified.

The full range of control and treatment technologies existing with each segment was identified. This included an identification of each distinct control technology, including both inplant and end-of-process technologies which are existent or capable of being designed for each segment. Also included was an identification of, in terms of the amount of constituents (including thermal) and the chemical, physical, biological characteristics of pollutants, the effluent level resulting from the application of each of the treatment and control technologies. The problems, limitations and reliability of each treatment and control technology and the required implementation time was also identified. In addition, the nonwater quality environmen-