

ENVIRONMENTAL PROTECTION  
AGENCY

[ 40 CFR Part 417 ]

SOAP AND DETERGENT MANUFACTURING  
POINT SOURCE CATEGORY

Application of Effluent Limitations Guide-  
lines for Existing Sources to Pretreat-  
ment Standards for Incompatible Pollu-  
tants

Notice is hereby given pursuant to sections 301, 304 and 307(b) of the Federal Water Pollution Control Act, as amended (the Act) 33 U.S.C. 1251, 1311, 1314 and 1317(b); 86 Stat. 816 et seq.; Pub. L. 92-500, that the proposed regulation set forth below concerns the application of effluent limitations guidelines for existing sources to pretreatment standards for incompatible pollutants. The proposal will amend 40 CFR Part 417—Soap and Detergent Manufacturing Point Source Category, establishing for each subcategory therein the extent of application of effluent limitations guidelines to existing sources which discharge to publicly owned treatment works. The regulation is intended to be complementary to the general regulation for pretreatment standards set forth at 40 CFR Part 128. The general regulation was proposed July 19, 1973 (38 FR 19236), and published in final form on November 8, 1973 (38 FR 30982).

The proposed regulation is also intended to supplement a final regulation being simultaneously promulgated by the Environmental Protection Agency (EPA or Agency) which provides effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the soap manufacturing by batch kettle, the fatty acid manufacturing by fat splitting, the soap manufacturing by fatty acid neutralization, the glycerine concentration, and glycerine distillation, the manufacture of soap flakes and powders, the manufacture of bar soaps, the manufacture of liquid soaps, the oleum sulfonation and sulfation, the air-SO<sub>3</sub> sulfation and sulfonation, the SO<sub>3</sub> solvent and vacuum sulfonation, the sulfamic acid sulfation, the chlorosulfonic acid sulfation, the neutralization of sulfuric acid esters and sulfonic acids, the manufacture of spray dried detergents, the manufacture of liquid detergents, the detergent manufacturing by dry blending, the manufacture of drum dried detergents and the manufacture of detergent bars and cakes subcategories of the soap and detergent manufacturing point source category. The latter regulation applies to the portion of a discharge which is directed to the navigable waters. The regulation proposed below applies to users of publicly owned treatment works which fall within the description of the point source category to which the guidelines and standards (40 CFR Part 417) promulgated simultaneously apply. However, the proposed regulation applies to the introduction of incompatible pollutants which are directed into a publicly owned treatment

works, rather than to discharges of pollutants to navigable waters.

The general pretreatment standard divides pollutants discharged by users of publicly owned treatment works into two broad categories: "compatible" and "incompatible." Compatible pollutants are generally not subject to pretreatment standards. (See 40 CFR 128.110 (State or local law) and 40 CFR 128.131 (Prohibited wastes) for requirements which may be applicable to compatible pollutants). Incompatible pollutants are subject to pretreatment standards as provided in 40 CFR 128.133, which provides as follows:

In addition to the prohibitions set forth in section 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry not subject to section 307(c) of the Act shall be, for sources within the corresponding industrial or commercial category, that established by a promulgated effluent limitations guidelines defining best practicable control technology currently available pursuant to sections 301(b) and 304(b) of the Act; 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; and provided further that *when the effluent limitations guidelines for each industry is promulgated, a separate provision will be proposed concerning the application of such guidelines to pretreatment.* (Emphasis italicized.)

The regulation proposed below is intended to implement that portion of § 128.133, above, requiring that a separate provision be made stating the application to pretreatment standards of effluent limitations guidelines based upon best practicable control technology currently available.

Questions were raised during the public comment period on the proposed general pretreatment standard (40 CFR Part 128) about the propriety of applying a standard based upon best practicable control technology currently available to all plants subject to pretreatment standards. In general, EPA believes the analysis supporting the effluent limitations guidelines is appropriate to support the application of those standards to users of publicly owned treatment works. However, to ensure that those standards are appropriate in all cases, EPA now seeks additional comments focusing upon the application of effluent limitations guidelines to users of publicly owned treatment works.

Sections 417.15, 417.25, 417.35, 417.45, 417.55, 417.65, 417.75, 417.85, 417.95, 417.105, 417.115, 417.125, 417.135, 417.145, 417.155, 417.165, 417.175, 417.185 and 417.195 of the proposed regulation for point sources within the soap and detergent manufacturing category (December 26, 1973; 38 FR 35250), contained the proposed pretreatment standard for new sources. The regulation promulgated simultaneously herewith contains §§ 417.16, 417.26, 417.36, 417.46, 417.56, 417.66, 417.76, 417.86, 417.96, 417.106,

417.116, 417.126, 417.136, 417.146, 417.156, 417.166, 417.176, 417.186, and 417.196 which state the applicability of standards of performance for purposes of pretreatment standard for new sources.

A preliminary Development Document was made available to the public at approximately the time of publication of the notice of proposed rulemaking and the final Development Document entitled "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Soap and Detergent Manufacturing Point Source Category" is now being published. The economic analysis report entitled "Economic Analysis of Proposed Effluent Guidelines, Soap and Detergent Manufacturing," (December 1973) was made available at the time of proposal. Copies of the final Development Document and economic analysis report will continue to be maintained for inspection and copying during the comment period at the EPA Information Center, Room 227, West Tower, Waterside Mall, 401 M Street, SW., Washington, D.C. Copies will also be available for inspection at EPA regional offices and at State water pollution control agency offices. Copies of the Development Document may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Copies of the economic analysis report will be available for purchase through the National Technical Information Service, Springfield, Virginia 22151.

On June 14, 1973, the Agency published procedures designed to insure that, when certain major standards, regulations, and guidelines are proposed, an explanation of their basis, purpose and environmental effects is made available to the public (38 FR 15653). The procedures are applicable to major standards, regulations and guidelines which are proposed on or after December 31, 1973, and which either prescribe national standards of environmental quality or require national emission, effluent or performance standards or limitations.

The Agency determined to implement these procedures in order to insure that the public was provided with background information to assist it in commenting on the merits of a proposed action. In brief, the procedures call for the Agency to make public the information available to it delineating the major environmental effects of a proposed action, to discuss the pertinent nonenvironmental factors affecting the decision, and to explain the viable options available to it and the reasons for the option selected.

The procedures contemplate publication of this information in the FEDERAL REGISTER, where this is practicable. They provide, however, that where such publication is impracticable because of the length of this material, the material may be made available in an alternate format.

The Development Document referred to above contains information available to the Agency concerning the major environmental effects of the regulation proposed below. The information in-

cludes: (1) The identification of pollutants present in waste waters resulting from the manufacture of soaps and detergents, the characteristics of these pollutants, and the degree of pollutant reduction obtainable through implementation of the proposed standard; and (2) the anticipated effects on other aspects of the environment (including air, subsurface waters, solid waste disposal and land use, and noise) of the treatment technologies available to meet the standard proposed.

The Development Document and the economic analysis report referred to above also contain information available to the Agency regarding the estimated cost and energy consumption implications of those treatment technologies and the potential effects of those costs on the price and production of soaps and detergents. The two reports exceed, in the aggregate, 100 pages in length and contain a substantial number of charts, diagrams and tables. It is clearly impracticable to publish the material contained in these documents in the FEDERAL REGISTER. To the extent possible, significant aspects of the material have been presented in summary form in the preamble to the proposed regulation containing effluent limitations guidelines, new source performance standards and pretreatment standards for new sources within the soap and detergent manufacturing category (38 FR 35250; December 26, 1973). Additional discussion is contained in the analysis of public comments on the proposed regulation and the Agency's response to those comments. This discussion appears in the preamble to the promulgated regulation (40 CFR Part 417) which currently is being published in the rules and regulations section of the FEDERAL REGISTER.

The options available to the Agency in establishing the level of pollutant reduction obtainable through the best practicable control technology currently available, and the reasons for the particular level of reduction selected are discussed in the documents described above. In applying the effluent limitations guidelines to pretreatment standards for the introduction of incompatible pollutants into municipal systems by existing sources in the soap and detergent manufacturing category, the Agency has, essentially, three options. The first is to declare that the guidelines do not apply. The second is to apply the guidelines unchanged. The third is to modify the guidelines to reflect: (1) Differences between direct dischargers and plants utilizing municipal systems which affect the practicability of the latter employing the technology available to achieve the effluent limitations guidelines; or (2) characteristics of the relevant pollutants which require higher levels of reduction (or permit less stringent levels) in order to insure that the pollutants do not interfere with the treatment works or pass through them untreated.

As fully described in the Development Document, the process waste waters in all but four of the subcategories (manu-

facture of spray dried detergents, manufacture of liquid detergents, detergent manufacturing by dry blending, and manufacture of drum dried detergents) contain similar types and amounts of constituents. These constituents are organics, solids, and inorganics including nutrients, and they are all treatable by biological treatment methods. In the opinion of EPA, suitable design and capacity can be provided for a publicly owned treatment works to account for these discharges. Accordingly, the first option should be applicable and the guidelines should not apply to operations in the subcategories (soap manufacturing by batch kettle, fatty acid manufacturing by fat splitting, soap manufacturing by fatty acid neutralization, glycerine concentration, glycerine distillation, manufacture of soap flakes and powders, manufacture of bar soaps, oleum sulfonation and sulfation, air-SO<sub>3</sub> sulfation and sulfonation, SO<sub>3</sub> solvent and vacuum sulfonation, sulfamic acid sulfation, neutralization of sulfuric acid esters and sulfonic acids, and manufacture of detergent bars and cakes) subcategories of the soaps and detergents industry which discharge to publicly owned treatment works.

In the four subcategories enumerated above the process waste waters may contain excessively high levels of refractive organic materials in addition to the other constituents. The refractive organics are such that excessive amounts will interfere with the performance of publicly owned treatment works by inhibiting the biota of the treatment works or passing through the works unreduced. In this regard, EPA has found that excessive amounts of refractive organics are manifest when the COD to BOD<sub>5</sub> ratio exceeds 4.0 to 1.0 which can easily occur if extensive in-plant housekeeping is not practiced. Consequently, in the opinion of EPA option three should apply with respect to COD if the COD to BOD<sub>5</sub> ratios exceed 4.0, in which case guidelines should apply for COD for the subcategories (manufacture of spray dried detergents, manufacture of liquid detergents, detergent manufacturing by dry blending, and manufacture of drum dried detergents) which discharge to publicly owned treatment works.

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. Phillip B. Wisman. Comments on all aspects of the proposed regulations are solicited. In the event comments are in the nature of criticisms as to the adequacy of data which are available, or which may be relied upon by the Agency, comments should identify and, if possible, provide any additional data which may be available and should indicate why such data are essential to the development of the regulations. In the event comments address the approach taken by the Agency in establishing pretreatment standards for existing sources, EPA solicits suggestions

as to what alternative approach should be taken and why and how this alternative better satisfies the detailed requirements of sections 301, 304 and 307(b) of the Act.

A copy of all public comments will be available for inspection and copying at the EPA Information Center, Room 227, West Tower, Waterside Mall, 401 M Street, SW., Washington, D.C. 20460. The EPA information regulation, 40 CFR Part 2, provides that a reasonable fee may be charged for copying.

In consideration of the foregoing, it is hereby proposed that 40 CFR Part 417 be amended to add §§ 417.14, 417.24, 417.34, 417.44, 417.54, 417.64, 417.74, 417.84, 417.94, 417.104, 417.114, 417.124, 417.134, 417.144, 417.154, 417.164, 417.174, 417.184 and 417.194. All comments received on or before May 13, 1974, will be considered.

Dated: April 2, 1974.

JOHN QUARLES,  
Acting Administrator.

Part 417 is proposed to be amended as follows:

1. Subpart A is amended by adding § 417.14 as follows:

§ 417.14 Pretreatment Standards for Existing Sources.

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.12 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

2. Subpart B is amended by adding § 417.24 as follows:

§ 417.24 Pretreatment Standards for Existing Sources.

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.22 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works, except in compliance with such limitations.

3. Subpart C is amended by adding § 417.34 as follows:

§ 417.34 Pretreatment Standards for Existing Sources.

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.32 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

4. Subpart D is amended by adding § 417.44 as follows:

**§ 417.44 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.42 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

5. Subpart E is amended by adding § 417.54 as follows:

**§ 417.54 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.52 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

6. Subpart F is amended by adding § 417.64 as follows:

**§ 417.64 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.62 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

7. Subpart G is amended by adding § 417.74 as follows:

**§ 417.74 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.72 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

8. Subpart H is amended by adding § 417.84 as follows:

**§ 417.84 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.82 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

9. Subpart I is amended by adding § 417.94 as follows:

**§ 417.94 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.92 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

10. Subpart J is amended by adding § 417.104 as follows:

**§ 417.104 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.102 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

11. Subpart K is amended by adding § 417.114 as follows:

**§ 417.114 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.112 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

12. Subpart L is amended by adding § 417.124 as follows:

**§ 417.124 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.122 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

13. Subpart M is amended by adding § 417.134 as follows:

**§ 417.134 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.132 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

14. Subpart N is amended by adding § 417.144 as follows:

**§ 417.144 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.142 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

15. Subpart O is amended by adding § 417.154 as follows:

**§ 417.154 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.152 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment and the following limitation on COD, process waste water from this subcategory may be introduced into a publicly owned treatment works.

For those operations subject to this subpart in which more than 25 percent of the annual production is represented by final products with a COD to BOD<sub>5</sub> ratio equal to or greater than 4.0 to 1.0, the COD shall be limited to 2.5 kg/kkg of anhydrous product for that portion of the production representing final products characterized by a COD to BOD<sub>5</sub> ratio equal to or greater than 4.0 to 1.0 and 8.0 kg/kkg of anhydrous product for that portion of the production represented by final products characterized by a COD to BOD<sub>5</sub> ratio of less than 4.0 to 1.0.

16. Subpart P is amended by adding § 417.164 as follows:

**§ 417.164 Pretreatment Standards for Existing Sources.**

(a) For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.162 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment and the following limitation on COD, process waste water from this subcategory may be introduced into a publicly owned treatment works.

(b) For those operations subject to this subpart in which more than 25 percent of the annual production is represented by final products with a COD to BOD<sub>5</sub> ratio equal to or greater than 4.0 to 1.0, the COD shall be limited to 1.0 kg/kkg of anhydrous product for that portion of the production representing final products characterized by a COD to BOD<sub>5</sub> ratio equal to or greater than 4.0 to 1.0 and 4.0 kg/kkg of anhydrous product for that portion of the production represented by final products characterized by a COD to BOD<sub>5</sub> ratio of less than 4.0 to 1.0.

17. Subpart Q is amended by adding § 417.174 as follows:

**§ 417.174 Pretreatment Standards for Existing Sources.**

(a) For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.172 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment and the following limitation on COD, process waste water from this subcategory may be introduced into a publicly owned treatment works.

(b) For those operations subject to this subpart in which more than 25 percent of the annual production is represented by final products with a COD to BOD5 ratio equal to or greater than 4.0 to 1.0, the COD shall be limited to 0.25 kg/kg of anhydrous product for that portion of the production representing final products characterized by a COD to BOD5 ratio equal to or greater than 4.0 to 1.0 and 0.50 kg/kg of anhydrous product for that portion of the produc-

tion represented by final products characterized by a COD to BOD5 ratio of less than 4.0 to 1.0.

18. Subpart R is amended by adding § 417.184 as follows:

**§ 417.184 Pretreatment Standards for Existing Sources.**

(a) For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.182 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment and the following limitation on COD, process waste water from this subcategory may be introduced into a publicly owned treatment works.

(b) For those operations subject to this subpart in which more than 25 percent of the annual production is represented by final products with a COD to BOD5 ratio equal to or greater than 4.0 to 1.0, the COD shall be limited to 0.15

kg/kg of anhydrous product for that portion of the production representing final products characterized by a COD to BOD5 ratio equal to or greater than 4.0 to 1.0 and 0.30 kg/kg of anhydrous product for that portion of the production represented by final products characterized by a COD to BOD5 ratio of less than 4.0 to 1.0.

19. Subpart S is amended by adding § 417.194 as follows:

**§ 417.194 Pretreatment Standards for Existing Sources.**

For the purpose of pretreatment standards for incompatible pollutants established under 40 CFR 128.133, the effluent limitations guidelines set forth in 40 CFR 417.192 above shall not apply and, subject to the provisions of 40 CFR Part 128 concerning pretreatment, process waste water from this subcategory may be introduced into a publicly owned treatment works.

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