ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 410]

TEXTILE INDUSTRY POINT SOURCE CATEGORY

Proposed Effluent Limitation Guidelines

Notice is hereby given that effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources set forth in tentative form below are proposed by the Environmental Protection Agency ("EPA") for the textile 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.; Pub. 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 textile 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 textile manufacturing category. The regulations proposed herein set forth the standards of performance applicable to new sources for the textile 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 410.15, 410.25, 410.35, 410.45, 410.55, 410.65, and 410.75, proposed below provide pretreatment standards for new sources within the textile manufacturing industry 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, information on such processes, procedures or operating methods.

(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 operation; 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.

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, was 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 EPA 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, §§ 410.15, 410.25, 410.35, 410.45, 410.55, 410.65, and 410.75 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 the textile manufacturing industry category of point sources.

(i) *Categorization.* For the purpose of studying waste treatment and effluent limitations, the textile manufacturing category was divided into discrete subcategories which coincide with a breakdown of the category according to the flow of materials as outlined in the De-

velopment Document for the textile manufacturing category.

The textile manufacturing industry has been divided into seven subcategories for the purpose of establishing effluent limitations guidelines and standards of performance. An exception within the subcategorization was also required because of unequal economic impacts caused by diseconomies of scale. The seven subcategories are comprised of a number of mill types which have been determined to have sufficiently dissimilar plant processes and waste characteristics to group them separately as subcategories.

(1) *Subpart A—Wool Scouring Subcategory.* Wool scouring and topmaking is the term used to describe the initial washing and cleaning of wool. This process generates a wide variety of organic and inorganic products in the waste effluents such as suint, dirt, and grease along with oils, such as lanolin.

(2) *Subpart B—Wool Finishing Subcategory.* Wool finishing involves the rinsing, bleaching, dyeing and finishing of wool. Specialized dyes peculiar to this fiber often result in the presence of chrominum in the waste effluent. In addition, phenols occur from dyeing polyester blends. The remaining wastes are similar to those in knit fabric finishing.

(3) *Subpart C—Greige Subcategory.* Greige mill processes include the spinning and texturizing of yarns which require a lubricating oil, similar to mineral oil. In addition, the yarns are often coated with a sizing material to give the yarn both lubrication and strength. This subcategory has mostly dry processes and very small industrial water usage.

(4) *Subpart D—Woven Fabric Finishing Subcategory.* Woven fabric finishing and integrated woven fabric finishing may involve many of the following operations: Sizing applications, desizing, bleaching, mercerizing, washing, dyeing, and rinsing, followed by the application of finishes such as soil repellants and anti-statics.

(5) *Subpart E—Knit Fabric Finishing Subcategory.* Knit fabric finishing involves the same processes that take place in woven fabric finishing and integrated woven fabric finishing without the sizing/desizing and little or no mercerizing operations.

(6) *Subpart F—Carpet Subcategory.* Carpet mills often include similar processes of the knit finishing subcategory with the addition of the latex backing to the carpets creating a special effluent problem.

(7) *Subpart G—Stock and Yarn Dyeing and Finishing Subcategory.* Stock and yarn dyeing and finishing involves many of the following: Mercerizing, bleaching, dyeing, and rinsing of stock and/or yarns. This operation differs from woven fabric finishing because there is no sizing and desizing operation.

(ii) *Waste characteristics.* The known significant pollutant characteristics of waste waters resulting from the textile manufacturing industry include: biochemical oxygen demand (BOD5), chemical oxygen demand (COD), total suspended nonfilterable solids (TSS), oils and grease, pH and fecal coliforms.

Ammonia and nitrate nitrogen, phenols, phosphates, dissolved solids, color, alkalinity, temperature, sulfides, chromium, and heavy metals are other waste water pollutants that are considered to be of lesser importance because available data has indicated these pollutants are normally removed when BOD5 or TSS are removed or they occur in insignificant quantities.

Three constituents of the waste water from plants within the textile industry have been found which would interfere with, pass through, or otherwise be incompatible with a well designed and operated publicly owned activated sludge or trickling filter waste water treatment plant. Waste water constituents include grease from wool scouring operations, latex from carpet mills and heavy metals such as chromium used in dyes. Adequate control methods can and should be used to keep significant quantites of these materials out of the waste water. Dye substitutes are available for many dyes containing heavy metals.

(iii) *Treatment and control technology.* In-plant procedures to control pollution include strict management control over housekeeping and water use practices and minimization of the intake of water by reuse and recirculation of waste waters.

"End of process" waste water treatment processes include preliminary screening, primary sedimentation, biological treatment and advanced treatment such as multi-media filtration or activated carbon.

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

Best practicable control technology currently available for the wool scouring and finishing subcategories, greige mills subcategory, woven and knit fabric finishing subcategories, carpet subcategory and stock and yarn dyeing and finishing subcategory includes preliminary screening, biological treatment and chlorination. Best practicable technology also includes primary sedimentation of process waste water for grease removal at wool scouring plants (subcategory 1) and acid coagulation for latex removal at carpet mills (subcategory 6).

The specified level of technology is practicable because it is being practiced by textile mills representing a wide range of plant sizes and types. Eighteen exemplary biological treatment systems have been utilized to develop the effluent limitations. These systems treat textile waste waters from knit fabric finishing, dyeing and finishing of broadwoven cotton and cotton-synthetic blends, carpet manufacturing, and stock and yarn dyeing and finishing. The effluent limitations established for each of these subcategories have been developed by averaging the effluent discharges from exemplary biological systems treating the appropriate subcategory waste water. The average BOD5 removal efficiency of these systems is greater than 95 percent; this efficiency has been utilized to develop limitations in subcategories without exemplary treatment operations. In these subcategories there are treatment systems that have demonstrated that high levels of effluent reduction for BOD5 and TSS are attainable. Most of these systems should be capable of meeting these limitations with some modification in operation or perhaps the presence of a knowledgeable operator. In general, only minor plant design changes along with cooperation from management and plant personnel will be required.

Best available control technology economically achievable for the seven textile subcategories includes the best practicable control technology currently available along with advanced treatment such as multimedia filtration or activated carbon adsorption. In some plants where large quantities of dispersed dyes or materials with poor adsorptive capacities are discharged, both activated carbon adsorption and multimedia filtration may be needed.

The specified level of technology is achievable. Biological treatment is practiced throughout the textile industry and activated carbon adsorption is practiced in at least four textile mills. The use of activated carbon to treat textile wastes was pioneered at a Pennsylvania carpet mill and at least one synthetic knit goods plant (Mill HH) is installing activated carbon. Multi-media filtration has been used effectively in various EPA applications including Lebanon, Ohio, and Washington, D.C. Filtration is also used as pretreatment before carbon adsorption at a Virginia textile mill.

Treatment required to achieve the best available demonstrated control technology, processes, operating methods or other alternatives for new sources is the same as for best available control technology economically achievable.

(iv) *Economic impact analysis.* A significant portion of the industry has already instituted some of the waste management alternatives, particularly biological treatment systems. A few have installed advanced systems, particularly activated carbon adsorption.

The capital investment costs of meeting the best practicable level of effluent reduction through the use of biological systems such as extended aeration are estimated to range from $10,200 to $336,000 for model plants within the seven textile subcategories. The annual treatment costs range from $3,900 to $88,000.

The capital investment costs of meeting the best available level of effluent reduction by the use of advanced treatment systems range from $10,000 to $140,000 for multi-media filtration units and range from $385,000 to $1,050,000 for activated carbon adsorption systems. The annual costs for multi-media filtration at model plants within the seven textile subcategories range from $3,000 to $41,300; the annual costs for activated car-

bon adsorption range from $113,100 to $404,800.

The estimated increases in final product costs for the best practicable control technology currently available (biological treatment) are economically feasible for small and large plants in all seven textile subcategories. The estimated final product cost increases range from 0.1 to 0.8 cents per kilogram of product for various subcategories. The average increase is less than 0.4 cents per kilogram.

The best available level of effluent reduction for the seven textile subcategories includes biological treatment along with advanced treatment such as multimedia filtration or activated carbon adsorption.

The estimated increases in final product costs for multimedia filtration are significantly less than costs for biological treatment. These costs are not excessive and should be economically achievable for all plant sizes in each subcategory. The maximum cost for any industry model plant is less than 0.4 cents per kilogram of product.

The price increases attributable to activated carbon adsorption appear to create an unequal economic impact. Variations in unit costs for small industry plants as compared with medium sized plants are reflected in an average price increase for a small plant of 4.2 cents per kilogram of product as compared with an average price increase for medium sized plants of 2.3 cents per kilogram. The diseconomy of scale with the associated unequal economic impact resulted in the establishment of different effluent limitations for small plants than for medium or large sized plants in six subcategories. Because of raw waste characteristics, carbon adsorption is not needed by greige mills. Thus, best available technology economically achievable is multi-media filtration for small textile mills in six subcategories and all greige mills and activated carbon adsorption for the remainder of the seven textile subcategories. Small mills in six subcategories are defined by final product capacity as follows: Wool scouring plants with capacity less than 6,500 kg/day; wool finishing mills with capacity less than 900 kg/day; woven fabric finishing mills with capacity less than 1000 kg/day; knit fabric finishing mills with capacity less than 3,450 kg/day; carpet mills with capacity less than 3,450 kg/day; and stock and yarn dyeing and finishing mills with capacity less than 3,100 kg/day.

The additional price increases for the best available technology economically achievable are estimated to range from 0.05 to 0.4 cents per kilogram of product processed by model small plants in six subcategories and all greige mills. For larger plants in the six subcategories the price increases range from 0.4 cents per kilogram to a high of 2.0 cents per kilogram. The overall costs of best practicable and best available technology are estimated to range between 0.3 and 1.1 cents per kilogram (0.6 and 2.5 cents per pound) produced by small plants and between 0.5 and 2.5 cents per kilogram (1.0 and 5.4 cents per pound) of product from larger plants.

Non-water quality impacts of the pollution control systems were analyzed and found to be of little consequence. Energy requirements of the industry are relatively low: Power required to operate the more refined mechanically aerated biological systems will increase consumption by considerably less than 10 percent. Solid wastes from treatment sludges and some odor from treatment systems are encountered, but no substantial impact can be identified.

It should be noted that a precise study of economic impact is difficult due to numerous other economic forces at work within an industry, and because of the great variability experienced from plant-to-plant in such factors as pollution control costs, profitability, and return on investment. In an economic study such as this, it is difficult to deal with these factors on an individual plant basis.

It is not expected that any significant economic impact would result from imposing the best practicable effluent limitations on all segments of this category by 1977.

Also, it is not expected that any significant economic impact would result from imposing the best available effluent limitations on industry segments by 1983. Because of this conclusion, we judge that the proposed guidelines for 1977, 1983 and new sources are economically achievable.

The report entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Textile Industry Point Source Category" details the analysis undertaken in support of the regulations being proposed herein and is available for inspection in the EPA Information Center, Room 227, West Tower, Waterside Mall, Washington, D.C., at all EPA regional offices, and at State water pollution control offices. A supplementary analysis prepared for EPA of the possible economic effects of the proposed regulations is also available for inspection at these locations. Copies of both of these documents are being sent to persons or institutions affected by the 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) *Environmental explanation.* 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 prescribe national standards of environmental quality or require national emission, effluent or performance standards and limitations.

The Agency determined to implement these procedures in order to insure that the public was apprised of the environmental effects of its major standards setting actions and was provided with detailed 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 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, because of the length of these materials, such publication is impracticable, the material may be made available in an alternate format.

The report entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Textile Industry Point Source Category" contains information available to the Agency concerning the major environmental effects of the regulation proposed below, including:

(1) The pollutants presently discharged into the Nation's waterways by manufacturers of textiles and the degree of pollution reduction obtainable from implementation of the proposed guidelines and standards (see particularly Sections IV, V, VI, IX, X, and XI);

(2) The anticipated effects of the proposed regulation on other aspects of the environment including air, subsurface waters, solid waste disposal and land use, and noise (see particularly Section VIII); and

(3) Options available to the Agency in developing the proposed regulatory system and the reasons for its selecting the particular levels of effluent reduction which are proposed (see particularly Sections VI, VII, and VIII).

The supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines TEXTILES INDUSTRY" contains an estimate of the cost of pollution control requirements and an analysis of the possible effects of the proposed regulations on prices, production levels, employment, communities in which textile manufacturing plants are located, and international trade. In addition, the above described Development Document describes, in Section VIII, the cost and energy consumption implications of the proposed regulations.

The two reports described above in the aggregate exceed 200 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 foregoing

portions of this preamble. Additional discussion is contained in the following analysis of comments received and the Agency's response to them. As has been indicated, both documents are available for inspection at the Agency's Washington, D.C. and regional offices and at State water pollution control agency offices. Copies of each have been distributed to persons and institutions affected by the proposed regulations or who have placed themselves on a mailing list for this purpose. Finally, so long as the supply remains available, additional copies may be obtained from the Agency as described above.

When regulations for the textile industry are promulgated in final form, revised copies of the Development Document will be available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Copies of the Economic Analysis will be available through the National Technical Information Service, Springfield, Virginia 22151.

(d) *Summary of public participation.* Prior to this publication, the agencies and groups listed below were consulted and given an opportunity to participate in the development of effluent limitations guidelines and standards proposed for the textile manufacturing category. All participating agencies have been informed of project developments. An initial draft of the Development Document was sent to all participants and comments were solicited on that report. The following are the principal agencies and groups consulted: (1) Effluent Standards and Water Quality Information Advisory Committee (established under section 515 of the Act); (2) American Institute of Chemical Engineers; (3) American Society of Civil Engineers; (4) American Society of Mechanical Engineers; (5) American Textile Manufacturers Institute; (6) Carpet and Rug Institute; (7) Northern Textile Association; (8) Hudson River Sloop Restoration, Inc.; (9) Conservation Foundation; (10) Businessmen for the Public Interest; (11) Environmental Defense Fund, Inc.; (12) Natural Resources Defense Council; (13) National Wildlife Federation; (14) Water Pollution Control Federation; (15) Ohio River Valley Sanitation Commission; (16) New England Interstate Water Pollution Control Commission; (17) Delaware River Basin Commission; (18) U.S. Department of Health, Education, and Welfare; (19) U.S. Department of Commerce; (20) U.S. Department of Agriculture; (21) Water Resources Council; (22) U.S. Department of the Interior; and (23) All State and U.S. Territory Pollution Control Agencies.

The following organizations responded with comments: American Textile Manufacturers Institute; Carpet and Rug Institute; Northern Textile Association; Woolrich Inc.; PVO International Inc.; Chas T. Main, Inc.; Department of Agriculture; Department of Commerce; Department of Treasury; U.S. Water Resources Council; Effluent Standards and Water Quality Information Advisory Committee; also the states of: Michigan, New York and South Carolina.

The comments were highly variable, ranging from full approval to rejection. It must be clearly understood that the treatment technologies used to develop the effluent limitations are alternative systems that have operated satisfactorily.

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

(1) Some comments were to the effect that the best available effluent limitations were too stringent. As outlined in the Development Document, the best available control technology economically achievable is the best practicable control technology plus multimedia filtration or activated carbon adsorption. The cost effectiveness of multiple-effect evaporation and incineration was evaluated and these technologies were determined to be less desirable than filtration or adsorption. Accordingly, best available effluent limitations have been developed based on filtration or carbon treatment.

(2) A number of commentors took the position that the cost and energy requirements of the best available effluent limitations were excessive. As mentioned above, the cost effectiveness of evaporation and incineration were determined to be less desirable than filtration or adsorption. Furthermore, economic analyses indicate that the diseconomies of scale resulting from activated carbon adsorption would create a more severe economic impact on many small textile mills than on the rest of the industry. Thus, exceptions have been made within six subcategories that provide for different limitations for small mills.

(3) Both the technical and economic studies have had to make important decisions on very limited information. Effluent limitations for wool subcategories are supported by only a limited data base. The more severe economic impacts for small mills are based on very limited information. Interested persons are invited to submit comments on any aspect of the proposed guidelines, particularly as they effect the small textile mill whether the discharge is to surface waters or a municipal treatment system. Information on alternative treatment technologies to meet the guidelines and the associated costs are specifically requested. The number, size, and locations of plants affected by the guidelines have been estimated by EPA. Any external estimates by industry are invited. On the basis of the information available, EPA will further evaluate segmentation on the basis of size in the final regulation.

Interested persons may participate in this rulemaking by submitting written comments 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. In the event comments are in the nature of criticisms as to the adequacy of data which is 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 is essential to the development of the regulations. In the event comments address the approach taken by the Agency in establishing an effluent limitation guideline or standard of performance, 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(b), 306, and 307 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. A copy of preliminary draft contractor reports, the Development Document and economic study referred to above, and certain supplementary materials supporting the study of the industry concerned will also be maintained at this location for public review and copying. The EPA information regulation, 40 CFR Part 2, provides that a reasonable fee may be charged for copying.

All comments received on or before March 7, 1974, will be considered. Steps previously taken by the Environmental Protection Agency to facilitate public response within this time period are outlined in the advance notice concerning public review procedures published on August 6, 1973 (38 FR 21202).

Dated January 23, 1974.

JOHN QUARLES,
Acting Administrator.

PART 410—EFFLUENT LIMITATIONS GUIDELINES FOR EXISTING SOURCES AND STANDARDS OF PERFORMANCE AND PRETREATMENT STANDARDS FOR NEW SOURCES FOR THE TEXTILE INDUSTRY POINT SOURCE CATEGORY

Subpart A—Wool Scouring Subcategory

Sec.

410.10 Applicability; description of wool scouring subcategory.
410.11 Specialized definitions.
410.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
410.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by application of the best available technology economically achievable.
410.14 Standards of performance for new sources.
410.15 Pretreatment standards for new sources.

Subpart B—Wool Finishing Subcategory

410.20 Applicability; description of wool finishing subcategory.
410.21 Specialized definitions.
410.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

AUTHORITY: Secs. 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. 1816 et seq. Pub. L. 92-500) (the "Act").

Subpart A—Wool Scouring Subcategory

§ 410.10 Applicability; description of wool scouring subcategory.

The provisions of this subpart are applicable to discharges resulting from the following types of textile mills: Wool scouring, topmaking, and general cleaning of raw wool.

§ 410.11 Specialized definitions.

For the purposes of this subpart:

(a) The term "wool" shall mean the dry raw wool as it is received by the wool scouring mill;

(b) The terms "fecal coliform" and "oil and grease" shall be measured by the procedure presented in "Standard Methods for the Examination of Water and Wastewater", 13th Edition, 1971.

(c) The following abbreviations shall have the following meanings: (1) "kg" shall mean kilograms(s); (2) "kkg" shall mean 1,000 kilograms; (3) "lb" shall mean pound(s); (4) "ml" shall mean milliliter; (5) "TSS" shall mean total suspended nonfilterable solids; (6) "BOD5" shall mean five day biochemical oxygen demand; (7) "COD" shall mean the chemical oxygen demand.

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 7.4 kg/kkg wool (7.4 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 3.7 kg/kkg wool (3.7 lb/1,000 lb wool).
COD	Maximum for any 1 day: 48 kg/kkg wool (48 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 24 kg/kkg wool (24 lb/1,000 lb wool).
TSS	Maximum for any 1 day: 7.4 kg/kkg wool (7.4 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 3.7 kg/kkg wool (3.7 (lb/1,000 lb wool).
Oils and Grease.	Maximum for any 1 day: 3.8 kg/kkg wool (3.8 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 1.9 kg/kkg wool (1.9 lb/1,000 lb wobl).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 6,500 kg product per day. This exemption is required because of economic factors listed in section 304(b).

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 5.0 kg/kkg wool (5.0 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 2.5 kg/kkg wool (2.5 lb/1,000 lb wool).
COD	Maximum for any 1 day: 12.8 kg/kkg wool (12.8 lb/1,000 lb). Maximum average of daily values for any period of 30 consecutive days: 6.4 kg/kkg wool (6.4 lb/1,000 lb wool).
TSS	Maximum for any 1 day: 5.0 kg/kkg wool (5.0 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 2.5 kg/kkg wool (2.5 lb/1,000 lb wool).
Oils and Grease.	Maximum for any 1 day: 3.8 kg/kkg wool (3.8 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 1.9 kg/kkg wool (1.9 lb/1,000 lb wool).

Effluent characteristic	*Effluent limitation*
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 6,500 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.14 Standards of performance for new sources.

(a) The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction 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 by a new point source subject to the provisions of this subpart:

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 5.0 kg/kkg wool (5.0 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 2.5 kg/kkg wool (2.5 lb/1,000 lb wool).
COD	Maximum for any 1 day: 12.8 kg/kkg wool (12.8 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 6.4 kg/kkg wool (6.4 lb/1,000 lb wool).
TSS	Maximum for any 1 day: 5.0 kg/kkg wool (5.0 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 2.5 kg/kkg wool (2.5 lb/1,000 lb wool).
Oils and Grease.	Maximum for any 1 day: 3.8 kg/kkg wool (3.8 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 1.9 kg/kkg wool (1.9 lb/1,000 lb wool).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 6,500 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.15 Pretreatment standards for new sources.

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

In addition to the prohibitions set forth in § 128.131 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 § 410.14 of this chapter: *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—Wool Finishing Subcategory

§ 410.20 Applicability; description of wool finishing subcategory.

The provisions of this subpart are applicable to discharges resulting from the following types of textile mills: Wool finishers, including dyeing, bleaching, rinsing, fire proofing, and other such similar processes.

§ 410.21 Specialized definitions.

For the purposes of this subpart:

(a) The term "wool" shall mean the dry wool as it is received by the wool mill;

(b) The term "fecal coliform" shall be measured by the procedure presented in "Standard Methods for the Examination of Water and Wastewater", 13th Edition, 1971.

(c) The following abbreviations shall have the following meanings: (1) "kg" shall mean kilogram(s); (2) "kkg" shall mean 1,000 kilograms; (3) "lb" shall mean pound(s); (4) "ml" shall mean milliliter; (5) "TSS" shall mean total suspended nonfilterable solids; (6) "BOD5" shall mean five day biochemical oxygen demand; (7) "COD" shall mean the chemical oxygen demand.

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 15.0 kg/kkg wool (15.0 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 7.5 kg/kkg wool (7.5 lb/1,000 lb wool).
COD	Maximum for any 1 day: 112 kg/kkg wool (112 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 56 kg/kkg wool (56 lb/1,000 lb wool).
TSS	Maximum for any 1 day: 15.0 kg/kkg wool (15.0 lb/1,000 lb wool). Maximum average of daily values for any period of 30 consecutive days: 7.5 kg/kkg wool (7.5 lb/1,000 lb wool).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 900 kg product per day. This exemption is required because of economic factors listed in section 304(b).

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 10.0 kg/kkg product (10.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 5.0 kg/kkg product (5.0 lb/1,000 lb product).
COD	Maximum for any 1 day: 29.8 kg/kkg product (29.8 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 14.9 kg/kkg product (14.9 lb/1,000 lb product).
TSS	Maximum for any 1 day: 10.0 kg/kkg product (10.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 5.0 kg/kkg product (5.0 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 900 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.24 Standards of performance for new sources.

(a) The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction 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 by a new point source subject to the provisions of this subpart:

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 10.0 kg/kkg product (10.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 5.0 kg/kkg product (5.0 lb/1,000 lb product).
COD	Maximum for any 1 day: 29.8 kg/kkg product (29.8 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 14.9 kg/kkg product (14.9 lb/1,000 lb product).
TSS	Maximum for any 1 day: 10.0 kg/kkg product (10.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 5.0 kg/kkg product (5.0 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 900 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.25 Pretreatment standards for new sources.

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

In addition to the prohibitions set forth in § 128.131, 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 § 410.24 of this chapter: *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 C—Greige Mills Subcategory

§ 410.30 Applicability; description of greige mills subcategory.

The provisions of this subpart are applicable to discharges resulting from the following types of textile mills: greige mills.

§ 410.31 Specialized definitions.

For the purposes of this subpart:

(a) The term "product" shall mean the final material produced or processed by the mill;

(b) The term "fecal coliform" shall be measured by the procedure presented in "Standard Methods for the Examination of Water and Wastewater", 13th Edition, 1971.

(c) The following abbreviations shall have the following meanings: (1) "kg" shall mean kilogram(s); (2) "kkg" shall mean 1,000 kilograms; (3) "lb" shall mean pound(s); (4) "ml" shall mean milliliter; (5) "TSS" shall mean total suspended nonfilterable solids; (6) "BOD5" shall mean five day biochemical oxygen demand; (7) "COD" shall mean the chemical oxygen demand.

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 0.9 kg/kkg product (0.9 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 0.45 kg/kkg product (0.45 lb/1,000 lb product).
TSS	Maximum for any 1 day: 0.9 kg/kkg product (0.9 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 0.45 kg/kkg product (0.45 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 0.6 kg/kkg product (0.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 0.3 kg/kkg product (0.3 lb/1,000 lb product).
TSS	Maximum for any 1 day: 0.6 kg/kkg product (0.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 0.3 kg/kkg product (0.3 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

§ 410.34 Standards of performance for new sources.

The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction 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 by a new point source subject to the provisions of this subpart:

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 0.6 kg/kkg product (0.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 0.3 kg/kkg product (0.3 lb/1,000 lb product).
TSS	Maximum for any 1 day: 0.6 kg/kkg product (0.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 0.3 kg/kkg product (0.3 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

§ 410.35 Pretreatment standards for new sources.

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

In addition to the prohibitions set forth in § 128.131, 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 § 410.34, of this chapter: *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall be correspondingly reduced for that pollutant.

Subpart D—Woven Fabric Finishing Subcategory

§ 410.40 Applicability; description of woven fabric finishing subcategory.

The provisions of this subpart are applicable to discharges resulting from the following types of textile mills: Woven fabric finishers, which may include any

or all of the following unit operations; desizing, bleaching, scouring, mercerizing, carbonizing, fulling, dyeing, printing, resin treatment, water proofing, flame proofing, soil repellency application and a special finish application.

§ 410.41 Specialized definitions.

For the purposes of this subpart:

(a) The term "product" shall mean the final material produced or processed by the mill;

(b) The term "fecal coliform" shall be measured by the procedure presented in "Standard Methods for the Examination of Water and Wastewater", 13th Edition, 1971.

(c) The following abbreviations shall have the following meanings: (1) "kg" shall mean kilograms(s); (2) "kkg" shall mean 1,000 kilograms; (3) "lb" shall mean pound(s); (4) "ml" shall mean milliliter; (5) "TSS" shall mean total suspended nonfilterable solids; (6) "BOD5" shall mean five day biochemical oxygen demand; (7) "COD" shall mean the chemical oxygen demand.

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 4.4 kg/kkg product (4.4 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 2.2 kg/kkg product (2.2 lb/1,000 lb product).
COD	Maximum for any 1 day: 66 kg/kkg product (66 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 33 kg/kkg product (33 lb/1,000 lb product).
TSS	Maximum for any 1 day: 13.8 kg/kkg product (13.8 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 6.9 kg/kkg product (6.9 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 1,000 kg product per day. This exemption is required because of economic factors listed in section 304(b).

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 3.0 kg/kkg product (3.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 1.5 kg/kkg product (1.5 lb/1,000 lb product).
COD	Maximum for any 1 day: 17.6 kg/kkg product (17.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 8.8 kg/kkg product (8.8 lb/1,000 lb product).
TSS	Maximum for any 1 day: 9.2 kg/kkg product (9.2 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 4.6 kg/kkg product (4.6 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 1,000 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.44 Standards of performance for new sources.

(a) The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction 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 by a new point source subject to the provisions of this subpart:

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 3.0 kg/kkg product (3.0 lb/1000 lb product). Maximum average of daily values for any period of 30 consecutive days: 1.5 kg/kkg product (1.5 lb/1,000 lb product).
COD	Maximum for any 1 day: 17.6 kg/kkg product (17.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 8.8 kg/kkg product (8.8 lb/1,000 lb product).
TSS	Maximum for any 1 day: 9.2 kg/kkg product (9.2 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 4.6 kg/kkg product (4.6 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0. MPN shall not exceed 400 counts per 100 ml.
Fecal Coliform.	

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 1,000 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.45 Pretreatment standards for new sources.

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

In addition to the prohibitions set forth in § 128.131 of this chapter the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 410.44 of this chapter: *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall be correspondingly reduced for that pollutant.

Subpart E—Knit Fabric Finishing Subcategory

§ 410.50 Applicability; description of knit fabric finishing subcategory.

The provisions of this subpart are applicable to discharges resulting from the following types of textile mills: Knit fabric finishers which may include any or all of the following unit operations; bleaching, scouring, mercerizing, carbonizing, fulling, dyeing, printing, resin treatment, water proofing, flame proofing soil repellancy application and application of special finishes.

§ 410.51 Specialized definitions.

For the purposes of this subpart:

(a) The term "product" shall mean the final material produced or processed by the mill;

(b) The term "fecal coliform" shall be measured by the procedure presented in "Standard methods for the Examination of Water and Wastewater", 13th Edition, 1971.

(c) The following abbreviations shall have the following meanings: (1) "kg" shall mean kilograms(s); (2) "kkg" shall mean 1,000 kilograms; (3) "lb" shall

mean pound(s); (4) "ml" shall mean milliliter; (5) "TSS" shall mean total suspended nonfilterable solids; (6) "BOD5" shall mean five day biochemical oxygen demand; (7) "COD" shall mean the chemical oxygen demand.

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 3.6 kg/kkg product (3.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 1.8 kg/kkg product (1.8 lb/1,000 lb product).
COD	Maximum for any 1 day: 48 kg/kkg product (48 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 24 kg/kkg product (24 lb/1,000 lb product).
TSS	Maximum for any 1 day: 16.0 kg/kkg product (16.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 8.0 kg/kkg product (8.0 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 3,450 kg product per day. This exemption is required because of economic factors listed in section 304(b).

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 2.4 kg/kkg product (2.4 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 1.2 kg/kkg product (1.2 lb/1,000 lb product).
COD	Maximum for any 1 day: 12.8 kg/kkg product (12.8 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 6.4 kg/kkg product (6.4 lb/1,000 lb product).
TSS	Maximum for any 1 day: 10.6 kg/kkg product (10.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 5.3 kg/kkg product (5.3 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 3,450 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.54 Standards of performance for new sources.

(a) The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction 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 by a new point source subject to the provisions of this subpart:

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 2.4 kg/kkg product (2.4 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 1.2 kg/kkg product (1.2 lb/1,000 lb product).
COD	Maximum for any 1 day: 12.8 kg/kkg product (12.8 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 6.4 kg/kkg product (6.4 lb/1,000 lb product).
TSS	Maximum for any 1 day: 10.6 kg/kkg product (10.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 5.3 kg/kkg product (5.3 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 3,450 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.55 Pretreatment standards for new sources.

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

In addition to the prohibitions set forth in § 128.131, 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 § 410.54 of this chapter: *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 F—Carpet Mills Subcategory

§ 410.60 Applicability; description of carpet mills subcategory.

The provisions of this subpart are applicable to discharges resulting from the following types of textile mills: Carpet mills, which may include any or all of the following unit operations; bleaching, scouring, carbonizing, fulling, dyeing, printing, resin treatment, water proofing, flame proofing, soil repellency, looping, backing with foamed and unfoamed latex and jute.

§ 410.61 Specialized definitions.

For the purposes of this subpart:

(a) The term "product" shall mean the final carpet produced or processed including the primary backing but excluding the secondary backing;

(b) The term "fecal coliform" shall be measured by the procedure presented in "Standard Methods for the Examination of Water and Wastewater", 13th Edition 1971.

(c) The following abbreviations shall have the following meanings: (1) "kg" shall mean kilograms(s); (2) "kkg" shall mean 1,000 kilograms; (3) "lb" shall mean pound(s); (4) "ml" shall mean milliliter; (5) "TSS" shall mean total suspended nonfilterable solids; (6) "BOD5" shall mean five day biochemical oxygen demand; (7) "COD" shall mean the chemical oxygen demand.

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

(a) The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged after application of best prac-

ticable control technology currently available by a point source subject to the provisions of this subpart:

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 8.6 kg/kkg product (8.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 4.3 kg/kkg product (4.3 lb/1,000 lb product).
COD	Maximum for any 1 day: 60 kg/kkg product (60 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 30 kg/kkg product (30 lb/1,000 lb product).
TSS	Maximum for any 1 day: 8.6 kg/kkg product (8.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 4.3 kg/kkg product (4.3 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 3,450 kg product per day. This exemption is required because of economic factors listed in section 304(b).

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 5.8 kg/kkg product (5.8 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 2.9 kg/kkg product (2.9 lb/1,000 lb product).
COD	Maximum for any 1 day: 16.0 kg/kkg product (16.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 8.0 kg/kkg product (8.0 lb/1,000 lb product).
TSS	Maximum for any 1 day: 5.8 kg/kkg product (5.8 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 2.9 kg/kkg product (2.9 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 3,450 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.64 Standards of performance for new sources.

(a) The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction 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 by a new point source subject to the provisions of this subpart:

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 5.8 kg/kkg product (5.8 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 2.9 kg/kkg product (2.9 lb/1,000 lb product).
COD	Maximum for any 1 day: 16.0 kg/kkg product (16.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 8.0 kg/kkg product (8.0 lb/1,000 lb product).
TSS	Maximum for any 1 day: 5.8 kg/kkg product (5.8 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 2.9 kg/kkg product (2.9 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 3,450 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.65 Pretreatment standards for new sources.

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

In addition to the prohibitions set forth in § 128.131 of this chapter, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 410.64 of this chapter: *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 G—Stock and Yarn Dyeing and Finishing Subcategory

§ 410.70 Applicability; description of stock and yarn dyeing and finishing subcategory.

The provisions of this subpart are applicable to discharges resulting from the following types of textile mills: Stock and yarn dyeing and finishing which may include any or all of the following unit operations and processes; cleaning, scouring, bleaching, mercerizing, dyeing and special finishing.

§ 410.71 Specialized definitions.

For the purposes of this subpart:

(a) The term "product" shall mean the final material produced or processed by the mill;

(b) The term "fecal coliform" shall be measured by the procedure presented in "Standard Methods for the Examination of Water and Wastewater", 13th Edition, 1971.

(c) The following abbreviations shall have the following meanings: (1) "kg" shall mean kilograms(s); (2) "kkg" shall mean 1,000 kilograms; (3) "lb" shall mean pound(s); (4) "ml" shall mean milliliter; (5) "TSS" shall mean total suspended nonfilterable solids; (6) "BOD5" shall mean five day biochemical oxygen demand; (7) "COD" shall mean the chemical oxygen demand.

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 7.0 kg/kkg product (7.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 3.5 kg/kkg product (3.5 lb/1,000 lb product).
COD	Maximum for any 1 day: 94 kg/kkg product (94 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 47 kg/kkg product (47 lb/1,000 lb product).
TSS	Maximum for any 1 day: 18.4 kg/kkg product (18.4 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 9.2 kg/kkg product (9.2 lb/1,000 lb product).

Effluent characteristic	*Effluent limitation*
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 3,100 kg product per day. This exemption is required because of economic factors listed in section 304(b).

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

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

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 4.6 kg/kkg product (4.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 2.3 kg/kkg product (2.3 lb/1,000 lb product).
COD	Maximum for any 1 day: 25.0 kg/kkg product (25.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 12.5 kg/kkg product (12.5 lb/1,000 lb product).
TSS	Maximum for any 1 day: 12.2 kg/kkg product (12.2 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 6.1 kg/kkg product (6.1 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 3,100 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.74 Standards of performance for new sources.

(a) The following limitations constitute the quantity or quality of pollutants or pollutant properties which may be discharged reflecting the greatest degree of effluent reduction 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 by a new point source subject to the provisions of this subpart:

Effluent characteristic	*Effluent limitation*
BOD5	Maximum for any 1 day: 4.6 kg/kkg product (4.6 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 2.3 kg/kkg product (2.3 lb/1,000 lb product).
COD	Maximum for any 1 day: 25.0 kg/kkg product (25.0 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 12.5 kg/kkg product (12.5 lb/1,000 lb product).
TSS	Maximum for any 1 day: 12.2 kg/kkg product (12.2 lb/1,000 lb product). Maximum average of daily values for any period of 30 consecutive days: 6.1 kg/kkg product (6.1 lb/1,000 lb product).
pH	Within the range of 6.0 to 9.0.
Fecal Coliform.	MPN shall not exceed 400 counts per 100 ml.

(b) The COD effluent limitation set forth in this section is not applicable for any point source subject to such effluent limitation with a production less than 3,100 kg product per day. This exemption is required because of economic factors listed in section 304(b).

§ 410.75 Pretreatment standards for new sources.

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

In addition to the prohibitions set forth in § 128.131 of this chapter, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry shall be the standard of performance for new sources specified in § 410.74: *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.

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