

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 410**

[WH-FRL 2181-3]

Textile Mills Point Source Category Effluent Limitations Guidelines, Pretreatment Standards and New Source Performance Standards**AGENCY:** Environmental Protection Agency.**ACTION:** Final rule.

SUMMARY: This regulation limits the discharge of pollutants into navigable waters from existing and new sources where intermediate and finished textile products are manufactured from various types of fiber, yarn and fabric; it supersedes all existing regulations for the textile mills point source category, except the best practicable control technology currently available effluent limitations (promulgated July 5, 1974 (39 FR 24739)). The Clean Water Act and a Settlement Agreement between EPA and several environmental groups require EPA to issue this regulation.

The purpose of this regulation is to specify "best practicable technology" effluent limitations for certain subcategories, and "best available technology" effluent limitations and "new source performance standards" for the entire textile industry.

DATES: In accordance with 40 CFR 100.01 (45 FR 26048), this regulation will be considered issued for purposes of judicial review at 1:00 P.M. Eastern time on September 16, 1982. It will become effective October 18, 1982.

Under section 509(b)(1) of the Clean Water Act, any petition for judicial review of this regulation must be filed in the United States Court of Appeals within 90 days after the regulation is considered issued for purposes of judicial review. Under section 509(b)(2) of the Clean Water Act, the regulation may not be challenged later in civil or criminal proceedings brought by EPA to enforce its requirements.

ADDRESSES: Technical information may be obtained by writing to Richard E. Williams, Effluent Guidelines Division, (WH-552), EPA, 401 M Street, SW., Washington, D.C. 20460 or through calling (202) 426-2554. On September 16, 1982 copies of the development document and the economic analysis will be available for public review in EPA's Public Information Reference Unit, Room 2404 (Rear) (EPA Library), 401 M Street, SW., Washington, D.C. On November 8, 1982 the complete Record will be available for public review at the

Public Information Reference Unit. The EPA information regulation (40 CFR Part 2) allows the Agency to charge a reasonable fee for copying. Copies of the development document and the economic analysis may also be obtained from the National Technical Information Service, Springfield, Virginia 22161 (703/487-6000). A notice will be published in the Federal Register announcing the availability of these documents from NTIS. (This should occur within 60 days of today's date.)

FOR FURTHER INFORMATION CONTACT: Richard E. Williams, (202) 426-2554.

SUPPLEMENTARY INFORMATION:**I. Legal Authority**

This regulation is promulgated under the authority of Sections 301, 304, 306, 307, 308 and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1251 *et seq.*, as amended by the Clean Water Act of 1977 (Pub. L. 95-217)), also called the "Act." It is also promulgated in response to the Settlement Agreement in *Natural Resources Defense Council, Inc. v. Train*, 8 ERC 2120 (D.D.C. 1976), *modified*, 12 ERC 1833 (D.D.C. 1979).

II. Scope of This Rulemaking

This regulation applies to the fiber preparation and manufacturing/processing parts of the textile industry which together make up the textile mills category (Standard Industrial Classification (SIC) Major Group 22). Textile apparel (SIC 23) is excluded here because plants in this group do not generate process wastewater.

Previously promulgated best available technology economically achievable (BAT) limitations, new source performance standards (NSPS), pretreatment standards for existing sources (PSES) and pretreatment standards for new sources (PSNS) are superseded by this regulation. The regulation promulgated today establishes effluent limitations and standards to control specific toxic, nonconventional and conventional pollutants for nine subcategories in the textile mills category: (1) Wool scouring, (2) wool finishing, (3) low water use processing, (4) woven fabric finishing, (5) knit fabric finishing, (6) carpet finishing, (7) stock and yarn finishing, (8) nonwoven manufacturing and (9) felted fabric finishing.

Best practicable control technology currently available (BPT) effluent limitations are established for the nonwoven manufacturing and the felted fabric finishing subcategories and for the water jet weaving subdivision of the low water use processing subcategory

for which BPT effluent limitations guidelines have never been issued. The technology basis of BPT is biological treatment. These limitations control one toxic pollutant (total chromium), three nonconventional pollutants (COD, sulfide and total phenol) and three conventional pollutants (BOD₅, TSS and pH).

BAT limitations are established for all nine subcategories in the textile mills point source category. The technology basis of BAT is biological treatment. BAT limitations for the seven existing subcategories are equal to the previously promulgated BPT limitations. For the two new subcategories and for the water jet weaving subdivision of the low water use processing subcategory, BAT limitations are being established equal to the BPT limitations being promulgated today. These BAT limitations control one toxic pollutant, total chromium, and the nonconventional pollutants chemical oxygen demand (COD), sulfide and phenols (as measured by the procedures listed in 40 CFR Part 136).

NSPS are established for all subcategories and control one toxic pollutant (total chromium), three nonconventional pollutants (COD, sulfide and phenols), and three conventional pollutants [biochemical oxygen demand (BOD₅), total suspended solids (TSS) and pH]. NSPS are based on the median performance of the best biological treatment systems currently used to treat textile mill wastewaters.

Finally, this regulation does not establish categorical pretreatment standards for the control of toxic pollutants at existing or new source textile mills. Rather, the textile mills point source category is required to comply with General Pretreatment Regulations (40 CFR Part 403).

In this regulation, the Agency is not making substantive changes to the previously promulgated BPT limitations for Subparts A-G. For the sake of completeness, BPT limitations, which are in effect, are printed in this final rule. The only change is that a new format is being used. Because this is not a substantive change, BPT limitations for Subparts A-G are not subject to legal challenge.

III. Summary of Legal Background

The Federal Water Pollution Control Act Amendments of 1972 established a comprehensive program to "restore and maintain the chemical, physical and biological integrity of the Nation's waters" (Section 101(a)). To implement the Act, EPA was required to issue effluent limitations guidelines,

pretreatment standards and new source performance standards for industrial dischargers.

The Act included a timetable for issuing these standards. However, EPA was unable to meet many of the deadlines and, as a result, in 1976, it was sued by several environmental groups. In settling this lawsuit, EPA and the plaintiffs executed a court-approved "Settlement Agreement." This Agreement required EPA to develop a program and adhere to a schedule in promulgating effluent limitations guidelines and pretreatment standards for 65 "priority" pollutants and classes of pollutants, for 21 major industries. [See *Natural Resources Defense Council, Inc. v. Train*, 8 ERC 2120 (D.D.C. 1976), modified, 12 ERC 1833 (D.D.C. 1979)].

Many of the basic elements of this Settlement Agreement were incorporated into the Clean Water Act of 1977 ("the Act"). Like the Settlement Agreement, the Act stressed control of the 65 classes of toxic pollutants. In addition, to strengthen the toxic control program, section 304(e) of the Act authorizes the Administrator to prescribe "best management practices" (BMP) to prevent the release of toxic and hazardous pollutants from plant site runoff, spillage or leaks, sludge or waste disposal and drainage from raw material storage associated with, or ancillary to, the manufacturing or treatment process.

Under the Act, the EPA program is to set a number of different kinds of effluent limitations. These are discussed in detail in the proposed regulation and development document. The following is a brief summary:

1. Best Practicable Control Technology Currently Available (BPT). BPT limitations generally are based on the average of the best existing performance at plants of various sizes, ages and unit processes within the industry or subcategory. In establishing BPT limitations, we consider the total cost of applying the technology in relation to the effluent reduction derived, the age of equipment and facilities involved, the process employed, the engineering aspects of the control technologies, process changes and nonwater-quality environmental impacts (including energy requirements). We balance the total cost of applying the technology against the effluent reduction.

2. Best Available Technology Economically Achievable (BAT). BAT limitations, in general, represent the best existing performance in the industrial subcategory or category. The Act establishes BAT as the principal national means of controlling the direct

discharge of toxic and nonconventional pollutants to navigable waters. In arriving at BAT, the Agency considers the age of the equipment and facilities involved, the process employed, the engineering aspects of the control technologies, process changes, the cost of achieving such effluent reduction and nonwater-quality environmental impacts. The Administrator retains considerable discretion in assigning the weight to be accorded these factors.

3. Best Conventional Pollutant Control Technology (BCT). The 1977 Amendments added section 301(b)(2)(E) to the Act establishing "best conventional pollutant control technology" (BCT) for discharges of conventional pollutants from existing industrial point sources. Conventional pollutants are those defined in section 304(a)(4) (biological oxygen demanding pollutants (e.g., BOD₅), total suspended solids (TSS), fecal coliform and pH) and any additional pollutants defined by the Administrator as "conventional," i.e., oil and grease. (See 44 FR 44501; July 30, 1979.)

BCT is not an additional limitation but replaces BAT for the control of conventional pollutants. In addition to other factors specified in section 304(b)(4)(B), the Act requires that BCT limitations be assessed in light of a two part "cost-reasonableness" test. *American Paper Institute v. EPA*, 660 F.2d 954 (4th Cir. 1981). The first test compares the cost for private industry to reduce its conventional pollutants with the cost to publicly owned treatment works (POTWs) for similar levels of reduction in their discharge of these pollutants. The second test examines the cost-effectiveness of additional industrial treatment beyond BPT. EPA must find that limitations are "reasonable" under both tests before establishing them as BCT. In no case may BCT be less stringent than BPT.

EPA published its methodology for carrying out the BCT analysis on August 29, 1979 (44 FR 50732). In the case mentioned above, the Court of Appeals ordered EPA to correct data errors underlying EPA's calculation of the first test, and to apply the second cost test. (EPA had argued that a second cost test was not required.)

EPA has determined that biological treatment, filtration and coagulation technologies are capable of removing significant amounts of conventional pollutants. However, EPA will soon propose a revised BCT methodology in response to the *American Paper Institute v. EPA* decision mentioned earlier. We will apply the new proposed BCT methodology to these technology

options and will propose the appropriate BCT limitations for this industry shortly.

4. New Source Performance Standards (NSPS). NSPS are based on the best available demonstrated technology. New plants have the opportunity to install the best and most efficient production processes and wastewater treatment technologies.

5. Pretreatment Standards for Existing Sources (PSES). PSES are designed to control the discharge of pollutants that pass through, interfere with, or are otherwise incompatible with the operation of a publicly owned treatment works (POTW). They must be achieved within three years of promulgation. The Clean Water Act of 1977 requires pretreatment for pollutants that pass through the POTWs in amounts that would violate direct discharger effluent limitations or interfere with the POTW's treatment process or chosen sludge disposal method. The legislative history of the Act indicates that pretreatment standards are to be technology-based, analogous to the best available technology. EPA has generally determined that there is pass through of pollutants if the percent of pollutants removed by a well-operated POTW achieving secondary treatment is less than the percent removed by the BAT model treatment system. The general pretreatment regulations, which served as the framework for the categorical pretreatment regulations, are found at 40 CFR Part 403 (43 FR 27736 (June 28, 1978); 46 FR 9462 (January 28, 1981)).

6. Pretreatment Standards for New Sources (PSNS). Like PSES, PSNS control the discharge of pollutants to POTWs that pass through, interfere with, or are otherwise incompatible with the operation of POTWs. PSNS are issued at the same time as NSPS. New indirect dischargers, like new direct dischargers, have the opportunity to incorporate the best available demonstrated technologies. The Agency considers the same factors in promulgating PSNS as it considers in promulgating PSES.

IV. Methodology and Data Gathering Efforts

The methodology and data gathering efforts used in developing the proposed regulation were discussed in the preamble to the proposal, 44 FR 62207-62209 (October 29, 1979), and the notice of availability, 46 FR 8590, *et seq.* (January 27, 1981). In summary, before publishing the proposed regulation in 1979, the Agency conducted a data collection, analytical screening, and analytical verification program for the textile mills industry. This program

stressed the acquisition of data on the presence and treatability of the 65 toxic pollutants and classes of toxic pollutants discussed previously. The 65 toxic pollutants and classes of pollutants potentially includes thousands of specific pollutants. EPA selected 129 specific toxic pollutants for study in this rulemaking and other industry rulemakings. (Analytical methods are discussed in *Sampling and Analysis Procedures for Screening of Industrial Effluents for Priority Pollutants* (U.S. E.P.A., April 1977)). Based on the results of that program, EPA identified several distinct treatment technologies, including both end-of-pipe and in-plant technologies, that are or can be used to treat textile industry wastewaters.

For each of these technologies, the Agency (i) compiled and analyzed historical and newly-generated data on effluent quality, (ii) identified its reliabilities and constraints, (iii) considered the nonwater quality impacts (including impacts on air quality, solid waste generation and energy requirements), and (iv) estimated the costs and economic impacts of applying it as a treatment and control system. Costs and economic impacts of the technology options considered are discussed in detail in *Economic Impact Analysis of Effluent Limitations and Standards for the Textile Mills Industry* (E.P.A. 440/2-82-001, August 1982). A more complete description of the Agency's study methodology, data gathering efforts and analytical procedures supporting the regulation can be found in the *Final Development Document for Effluent Limitations Guidelines New Source Performance Standards and Pretreatment Standards for the Textile Mills Point Source Category* (U.S. E.P.A., August 1982).

Subsequent to the October 1979 proposal, we reviewed all available information and found that additional data, especially daily monitoring data, were needed in order to determine accurately the performance of wastewater treatment systems. Therefore, EPA requested and received from ten mills daily results of treatment technology performance for the most recent full year of operation. All available data have been used to determine the capabilities of wastewater treatment systems applicable to textile wastewaters. EPA published a notice of availability of this additional information on January 27, 1981 (46 FR 8590) which resulted in some modifications to the proposed effluent limitations.

V. Changes From Proposal/Notice of Availability

The final regulation is significantly different from the proposed regulation. The changes are the result of the Agency's consideration of public comments provided in response to the proposal and the notice of availability, and further evaluation of the information upon which the proposal was based, the amounts of pollutants discharged at the BPT level of control, the treatability of the pollutants present in BPT effluents, the cost per pound of pollutant removed by the proposed BAT technology and the economic impact that would result from the implementation of proposed BAT limitations. Following are a review of the proposed regulation, a summary of the changes from proposal to promulgation and an explanation of the reasons for the changes.

A. Subcategorization

With two exceptions, the subcategorization scheme that formed the basis of the proposed regulations is identical to the subcategorization scheme in the current BPT regulations (40 CFR Part 410, Subparts A-G) promulgated in 1974. At proposal, the Agency proposed the establishment of two new subcategories, the nonwoven manufacturing subcategory (Subpart H) and the felted fabric processing subcategory (Subpart I). (See 44 FR 62204, October 29, 1979.) The nine subcategories of the promulgated regulations are the same as proposed.

In addition, the Agency proposed separate BAT limitations and NSPS for new subdivisions of the woven fabric finishing subcategory (Subpart D) (simple, complex and desizing operations) and the knit fabric finishing subcategory (Subpart E) (simple, complex and hosiery operations). (See 44 FR 62204, October 29, 1979.) Promulgated NSPS include separate limitations for these new subdivisions, but the promulgated BAT limitations do not. As stated previously and discussed in detail below, for these two subcategories the Agency is establishing BAT effluent limitations controlling toxic and nonconventional pollutants equal to the previously promulgated BPT limitations. BPT limitations were based on biological treatment and apply to all of the different operations employed in the woven fabric finishing and the knit fabric finishing subcategories, even though separate BPT limitations applicable to the specific new subdivisions were never established. BPT does include COD allowances to account for the higher COD raw waste

loads typical of more complex operations in both subcategories. It is likely that costs would be incurred at some mills if BAT limitations required attainment of specific new limitations for the new subdivisions (simple, complex and desizing or hosiery operations) different from those specified in existing permits based on the BPT regulation. The Agency does not have sufficient information to determine the magnitude of these costs and, therefore, cannot assess the economic impact of establishing different limitations. Accordingly, other than those allowances included in the existing BPT regulation, this regulation does not establish separate BAT limitations for simple, complex and desizing operations in the woven fabric finishing subcategory or for simple, complex and hosiery operations in the knit fabric finishing subcategory.

Also, the Agency announced its intention to establish separate limitations for a new process, water jet weaving, in the low water use processing (formerly, dry processing) subcategory (Subpart C). (See 46 FR 9462; January 27, 1981.) The regulations promulgated today include separate limitations for the water jet weaving subdivision of the low water use processing subcategory.

B. Applicability

The Agency proposed to change the applicability of the regulations contained in Subparts A-F (compare 44 FR 62204 (October 29, 1979) and 39 FR 24739 (July 5, 1974)). Upon further consideration, regulations being promulgated today will continue the applicability reflected in Subparts A-F of the current BPT regulations. We have determined that continuation of the original applicability will facilitate the issuance of permits. Because of the general familiarity of affected parties with existing regulations, the administrative burden required of both permit applicants and permit-issuing officials will be greatly reduced through continuation of the original applicability.

C. Best Practicable Technology Limitations

In these regulations, EPA is promulgating BPT effluent limitations guidelines for the nonwoven manufacturing and the felted fabric processing subcategories and the water jet weaving subdivision of the low water use processing subcategory. EPA did not specifically propose BPT effluent limitations for these subcategories; we did propose BAT limitations and

provided information on the pollutant removal effectiveness of biological treatment and multimedia filtration of biologically-treated effluents. For the reasons discussed below, we are establishing BPT effluent limitations based on biological treatment.

As discussed in the notice of availability, the raw waste characteristics of wastewaters discharged from mills in the nonwoven manufacturing subcategory and the felted fabric processing subcategory are substantially the same as those discharged from mills in the carpet finishing and wool finishing subcategories, respectively. (See 46 FR 8593; January 27, 1981.) BPT limitations for the nonwoven manufacturing and the felted fabric processing subcategories are based on transfer of the performance of biological treatment from the carpet finishing and wool finishing subcategories, respectively. The methodology used to develop BPT limitations is further discussed in Section VIII of the development document. In making the decision to base the BPT limitations for these two new subcategories on the performance of technology in two existing subcategories, the Agency determined that the technology, biological treatment, was clearly available and could be employed by the mills in the two new subcategories. It is also reasonable to predict that biological treatment will be capable of removing that increment of pollutants necessary to meet the new BPT limitations. This prediction is supported by the data on the performance of biological treatment in removing the same pollutants from mills in the carpet and wool finishing subcategories. A complete discussion of the Agency's consideration of the statutory factors for establishing BPT and the Agency's methodology are included in Section VIII of the development document.

The water jet weaving process is a recent technological development. In fact, sufficient data upon which effluent limitations and standards can be based are available from only two mills, both of which employ biological treatment. EPA is establishing BPT limitations for the water jet weaving subdivision of the low water use processing subcategory equal to the average performance levels being achieved at the two existing mills. A complete discussion of EPA's methodology in establishing this new BPT limitation is presented in Section VIII of the development document.

While these new BPT limitations are being established without formal proposal, the Agency has determined

that there is good cause for promulgation without separate notice and comment. The new BPT limitations are based on the use of the same technology, biological treatment, as all of the existing BPT limitations.

Data on the performance of biological treatment was included in the record of the proposal since biological treatment alone was one option considered by the Agency in originally proposing BAT limitations. See 44 FR 62212. While the Agency elected to propose BAT limitations based on biological treatment plus the end-of-pipe controls, the public comments predominantly favored establishing limitations based upon the performance of biological treatment alone. The Agency believes that all commenters had an opportunity to present their views; it is unlikely that the comments would have differed fundamentally if the commenters had known that EPA would establish BPT and BAT limitations rather than only BAT limitations for the two new subcategories and new subdivision. Accordingly, it was unnecessary to provide separate opportunity for public comment.

D. Best Available Technology Limitations

The technology basis of the proposed BAT effluent limitations was biological treatment followed by multimedia filtration, except in the case of the wool scouring and wool finishing subcategories and the hosiery subdivisions of the knit fabric finishing subcategory where limitations were based on biological treatment, chemical coagulation and dissolved air flotation and the felted fabric processing subcategory where limitations were based on biological treatment. The proposed BAT effluent limitations would have controlled three toxic pollutants (total chromium, total copper and total zinc). Three nonconventional pollutants would have been controlled (chemical oxygen demand (COD), total phenols (as measured by the procedure listed in 40 CFR Part 136, *Standard Methods*) and color (as measured by the method developed by the American Dye Manufacturers Institute (ADMI) and described in the proceedings of the 28th Industrial Waste Conference, Purdue University)). One conventional pollutant (total suspended solids (TSS)) was proposed as an indicator for the control of toxic organic pollutants discharged from textile mills.

Comments received on the proposed regulations questioned the need for controls more stringent than existing BPT for these pollutants. The commenters stated that the level of

control proposed for existing mills is too costly in relation to the effluent reduction benefits.

Since proposal, EPA has completed an analysis of all available data to determine the quantity of pollutants discharged by this industry, the treatability of pollutants present in BPT effluents, the cost per pound of pollutant removed by the proposed BAT technology and the economic impact that would result from the implementation of proposed BAT limitations.

EPA determined that the amount of toxic pollutants being discharged from the textile industry when BPT limitations are attained is less than 3.2 kg (7 lbs) per day per plant and that the total industry discharge is about 209 kkg (230 tons) per year. The total chromium being discharged is less than 1.2 kg (2.7 lbs) per day per plant. The Agency calculated that attainment of proposed BAT would result in costs of over \$327 per pound equivalent of total toxics removed (1981 dollars). [A pound equivalent is calculated by multiplying the number of pounds of pollutant discharged by a weighting factor for that pollutant. The weighting factor is equal to the water quality criterion for a standard pollutant, copper, divided by the water quality criterion for the pollutant being evaluated]. This cost is significantly higher than that for other industries for which BAT limitations have been established (e.g., iron and steel, inorganic chemicals). EPA has been unable to identify any reasonable, less costly technology option. In addition, EPA has estimated that attainment of proposed BAT limitations might cause the closure of nine mills and the unemployment of some 1800 workers. The Agency found that these closures might affect the local communities in which the mills are located because of the unavailability of alternative employment.

The proposed BAT limitations were aimed at controlling 15 organic toxic pollutants and 12 toxic metals. All the other toxic pollutants were excluded from regulation under Paragraph 8 of the modified Settlement Agreement (44 FR 62218, 62228-229; October 29, 1979). Since proposal, we have compared the concentrations of these 27 toxic pollutants present in textile industry wastewaters to the lowest concentration of each pollutant that can reasonably be achieved by the application of known technologies. (These lowest achievable concentrations are hereafter called "lowest theoretical treatability levels.") We also determined the degree and frequency that these lowest

concentrations are exceeded. We found that of the 27 toxic pollutants of interest, 17 pollutants were found above lowest theoretical treatability levels in the raw waste only in a few isolated instances, six pollutants were found above lowest theoretical treatability levels in treated effluents only in a few isolated instances, two pollutants were detected at only a small number of sources and are uniquely related to those sources and one pollutant was not detectable with the use of state-of-the-art analytical methods because it is a common laboratory contaminant. The remaining pollutant, total chromium, is controlled by existing BPT effluent limitations. Establishment of BAT as proposed would result in only an estimated 10 percent reduction in the discharge of chromium (i.e., only 0.3 pounds per plant per day) at an estimated capital investment cost of approximately \$78 million (First Quarter, 1982 dollars). The costs of additional removal of chromium and the potential economic impact do not justify further control.

In reviewing all available data and information, we found that (1) the amounts of toxic pollutants discharged at the BPT level of control are generally low, (2) the removal costs at the proposed BAT level of control are relatively high when compared to other industries, (3) toxic pollutants are found above the lowest achievable concentrations in only isolated instances, and (4) attainment of proposed BAT limitations might result in the closure of nine mills and the loss of 1800 jobs. Based on these findings, the Agency has determined that more stringent regulation of toxic pollutant discharges from the textile industry is not justified and that BAT effluent limitations should be established equal to BPT limitations. The Agency recently completed an environmental assessment in which we compared the predicted in-stream concentrations of toxic pollutants found in textile discharges after attainment of BPT and after attainment of proposed BAT effluent limitations with EPA's ambient water quality criteria. This analysis confirms our decision not to control toxics beyond a BPT level.

The Agency recognizes that the quantity of toxic pollutants discharged from individual mills may, in some cases, be higher than the industry average and may not be insignificant when viewed as a single point source discharge. As explained above and in the preamble to the proposed rule (44 FR 62204; October 29, 1979), several toxic pollutants have been found above

minimum treatability levels in a few isolated instances. These include 1,2,4-trichlorobenzene, 2,4,6-trichlorophenol, toluene and tetrachloroethylene use as dye carriers and naphthalene, pentachlorophenol and ethylbenzene used in the synthesis of dyes. Permit-issuing authorities may find it necessary to require representatives of individual mills to provide information on toxic pollutant usage, to analyze for specific toxic pollutants, and/or to conduct bioassay testing prior to issuing a NPDES permit. Permit-issuing authorities may limit specific pollutants on a case-by-case basis when limitations are necessary to carry out the purposes of the Act, even if the pollutant is not controlled in this regulation (see Relationship to NPDES Permits).

EPA has also decided that the nonconventional pollutant color should be controlled on a case-by-case basis as dictated by water quality considerations, rather than through establishing uniform national standards. Color, in many instances, is an aesthetic pollutant, although in some instances color can interfere with sunlight transmission and the process of photosynthesis in the aquatic environment. Color is a mill-specific problem related to the combination of dyes and finishing chemicals used.

In addition, the Agency has found that the quantity of the nonconventional pollutants sulfide and total phenols now discharged by the textile industry are adequately controlled by existing BPT limits. Accordingly, more stringent BAT limitations are not needed. This is because of several factors including (a) substitution of sulfur dyes, (b) use of nonphenolic dye carriers and preservatives and (c) the effectiveness of biological treatment in removing these pollutants. EPA has not identified a technology option that is more effective than current industry practices. Therefore, EPA is incorporating existing BPT limitations for sulfide and total phenols in the BAT regulations promulgated today.

Furthermore, EPA has determined that it is not appropriate to establish more stringent COD limitations. Biological treatment is capable of removing on the order of 70 percent of the COD raw waste load typical of this industry. The technology on which proposed BAT limitations were based is relatively ineffective in reducing COD. (The application of multimedia filtration in addition to biological treatment increases COD removal to only about 75 percent.) The application of other technologies considered during

development of the proposed rule [e.g., multimedia filtration (MMF) plus granular activated carbon (GAC), or chemical coagulation (CC), sedimentation (SED), MMF plus GAC] can be very effective in reducing COD discharges. However, these technologies have total annual costs as much as three to six times that of the proposed BAT. As discussed previously, EPA predicts that nine mills might close if required to attain proposed BAT limitations. The economic impact analysis predicted that the application of MMF plus GAC or the application of CC, SED, MMF plus GAC could result in the closure of 12 and 27 plants, respectively. Because the costs of application of more advanced technologies to control COD are high in relation to the effluent reduction benefits and because of a potential for adverse economic impact, the Agency has determined that COD should continue to be controlled at the BPT level.

For the reasons discussed above, EPA is establishing BAT limitations for toxic and nonconventional pollutants equal to the previously promulgated BPT limitations (for the seven existing subcategories) or equal to the BPT limitations promulgated today (for the two new subcategories and for the water jet weaving subdivision of the low water use processing subcategory). We expect that Federal and State permitting authorities will establish toxic and nonconventional pollutant limitations more stringent than the existing BPT, where needed, to account for unusual manufacturing or treatment circumstances or to achieve or maintain the receiving water quality.

E. New Source Performance Standards

The technology basis of proposed NSPS was biological treatment followed by chemical coagulation and multimedia filtration. The proposed NSPS would have controlled three toxic pollutants (total chromium, total copper and total zinc), three nonconventional pollutants (COD, total phenols and color) and three conventional pollutants (BOD₅, TSS and pH).

Promulgated NSPS are more stringent than BPT/BAT effluent limitations. The technology basis of promulgated NSPS is the best demonstrated biological treatment performance in the textile industry. As discussed previously, biological treatment (the technology basis of BPT effluent limitations) provides good control of the discharge of toxic pollutants and results in a significant reduction of nonconventional and conventional pollutants discharged textile mills. We have also determined

that application of biological treatment at new sources will not change the rate of entry into the industry or slow the industry growth rate. Specific standards for this industry are generally based on the median discharge levels attained at existing best performers in each subcategory of the textile industry. This level of control represents the best demonstrated performance of existing biological treatment systems in this industry. The specific methodology used to calculate the final NSPS for each subcategory is discussed in detail in the development document.

F. Pretreatment Standards

The technology basis of proposed PSES was screening and equalization plus chemical coagulation/sedimentation. The proposed PSNS was based on segregation of waste streams followed by screening and equalization plus chemical coagulation/sedimentation and multimedia filtration. Proposed pretreatment standards would have controlled total chromium, total copper and total zinc.

Commenters on the proposed standards for indirect dischargers (PSES and PSNS) argued that when existing general pretreatment standards are met, textile wastewaters do not interfere with the operation of POTWs, including disposal of sludge, or pass through a POTW inadequately treated.

The Clean Water Act of 1977 requires pretreatment for pollutants that pass through POTWs in amounts that would violate direct discharger effluent limitations or interfere with the POTW's treatment process or chosen sludge disposal method. The legislative history of the 1977 Act indicates that pretreatment standards are to be technology-based, analogous to the best available technology. EPA has generally determined that there is pass through of pollutants if the percent of pollutants removed by a well-operated POTW achieving secondary treatment is less than the percent removed by the BAT model treatment system.

We have reviewed available information and have determined that textile wastewaters are susceptible to treatment in and do not interfere with the operation of POTWs. Comparison of metal removal efficiencies at 20 POTWs and at textile industry biological treatment systems shows that POTW removal of copper, chromium and zinc is equal to or better than removal in industry biological treatment systems. [*Fate of Priority Pollutants in Publicly Owned Treatment Works* (EPA 440/1-80-301, October 1980)]. Therefore, these pollutants do not pass through POTWs.

Accordingly, under the authority of Paragraph 8(b)(i) of the modified Settlement Agreement, this regulation does not establish categorical pretreatment standards for the textile industry. The textile industry will, however, remain subject to the General Pretreatment Regulations. The development document includes information on the capability of various pretreatment technologies in controlling textile industry discharges to POTWs. We expect that operators of POTWs will be able to control the discharge of specific pollutants, if required, on a case-by-case basis and could make use of the information contained in the development document that EPA will publish.

VI. Costs and Economic Impact

Executive Order 12291 requires EPA and other agencies to provide regulatory impact analyses for rules that result in an annual cost to the economy of 100 million dollars or more or that meet other economic impact criteria. In addition, the Clean Water Act specifies that best available technology limitations must be economically achievable. The Regulatory Flexibility Act requires EPA to consider the effects of certain rules on small entities, and if they are significant and affect a substantial number of small entities, to prepare a Regulatory Flexibility Analysis. The Agency does not consider this to be a major rule. Similarly, there will not be a significant impact on a substantial number of small entities and, therefore, a Regulatory Flexibility Analysis is not required.

As discussed above, EPA is making substantial changes to the regulations that were proposed in October 1979 (and modified in the January 1981 notice of availability). BPT limitations are established for the new nonwoven manufacturing and felted fabric processing subcategories and the water jet weaving subdivision of the low water use processing subcategory. These limitations are based on the performance of biological treatment, the same technology on which existing BPT limitations were established. For the two new subcategories and the new subdivision, investment costs are \$3.7 million; total annualized costs are \$1.9 million, including depreciation and interest (First quarter, 1982 dollars). These compliance costs are not projected to result in any plant closures or cause other significant economic impacts. The BAT limitations promulgated today for the remaining seven subcategories do not reflect any treatment requirements beyond biological treatment for existing direct

dischargers. EPA is not establishing categorical pretreatment standards for existing indirect dischargers; these dischargers will only be subject to general pretreatment regulations already in effect for indirect dischargers (40 CFR Part 403). Accordingly, EPA expects no incremental costs or impacts for existing plants from this rulemaking. Additionally, NSPS are not expected to change the rate of entry into the industry or slow the industry growth rate.

In developing this rule, the Agency considered various technology options and analyzed their economic impacts. This analysis is presented in *Economic Impact Analysis of Effluent Limitations and Standards for the Textiles Mills Industry* (E.P.A. 440/2-82-001, August 1982). For each of the options considered during rulemaking, this analysis details the investment and annual costs for the industry as a whole and for typical plants; assesses the impact of effluent control in terms of price and production changes, plant closures and employment effects; and assesses the potential impacts on the small plants in this industry.

EPA also considered cost-effectiveness in developing the final regulation. The results of EPA's analysis are detailed in a separate report, "Cost Effectiveness Analysis for Effluent Limitations and Standards in the Textile Mills Industry," which is included in the Record.

VII. Nonwater Quality Environmental Impacts

Sections 304(b) and 306 of the Act require EPA to consider the nonwater quality environmental impacts (including energy requirements) of certain regulations. Because this regulation does not impose any additional pollution control requirements on existing sources, implementation will not result in any substantial increase in air pollution, energy use or solid waste generation.

VIII. Pollutants and Subcategories Not Regulated

Paragraph 8 of the modified Settlement Agreement, approved by the District Court for the District of Columbia on March 9, 1979 (12 ERC 1833), contains provisions authorizing the exclusion from regulation, in certain circumstances, of toxic pollutants and industry categories and subcategories.

A. Exclusion of Pollutants

On December 18, 1980, EPA submitted an affidavit explaining that the Agency decided not to regulate 102 of the 129

toxic pollutants under the authority of Paragraph 8(a)(iii) of the modified Settlement Agreement. Of those 102 pollutants, 65 were excluded from regulation because "they are not detectable by Section 304(h) analytical methods or other state-of-the-art methods," 22 were excluded from regulation because "they are detected at only a small number of sources within a subcategory and are uniquely related to those sources," and 15 were excluded from regulation because "they are present only in trace amounts and neither cause nor are likely to cause toxic effects."

We have completed our analysis of the amount and frequency of occurrence of specific toxic pollutants not previously excluded from regulation. We are excluding all remaining pollutants, with the exception of total chromium, under the authority of Paragraph 8(a)(iii). The pollutants and the specific reasons for their exclusion are presented in Appendix B.

The pollutant total chromium was controlled under the original BPT; because BAT is being promulgated equal to BPT, total chromium is controlled.

B. Exclusion of Subcategories

On May 10, 1979, the Agency submitted an affidavit excluding from regulation the apparel manufacturing, padding and upholstery filling and cordage and twine portions of the textile industry under the authority of Paragraph 8(a)(iv) because the amount and toxicity of each pollutant in the discharges do not justify the development of national regulations. This affidavit also explained that the low water use processing subcategory, for which BPT had been established, would be excluded from further regulation development, also under authority of Paragraph 8(a)(iv). Subsequently, however, the Agency decided to establish a separate subdivision and new BPT limitations for the new water jet weaving process in the low water use processing subcategory. (See 46 FR 9462; January 27, 1981.) The water jet weaving subdivision is included in the low water use processing subcategory because the wastewater discharges from the water jet weaving process are similar to those discharged in the low water use processing subcategory. The new limitations allow the discharge of higher levels of BOD, TSS and COD than current low water use processing limitations because of the greater water usage in the water jet weaving process.

In addition, under the authority of Paragraph 8(b)(i), this regulation does

not establish categorical pretreatment standards for existing and new sources in the textile mills point source category. We have found that textile wastewaters are susceptible to treatment in and do not interfere with or pass through publicly owned treatment works.

IX. Best Management Practices

Section 304(e) of the Clean Water Act gives the Administrator authority to prescribe "best management practices" (BMPs). EPA, through its Office of Water Enforcement, is offering guidance to permit authorities in establishing BMPs required by unique circumstances for a given plant. BMPs are not addressed in this regulation.

X. Upset and Bypass Provisions

A recurring issue is whether industry guidelines should include provisions authorizing noncompliance with effluent limitations during periods of "upset" or "bypass." An upset, sometimes called an "excursion," is an unintentional noncompliance occurring for reasons beyond the reasonable control of the permittee. It has been argued that an upset provision in EPA's effluent limitations is necessary because such upsets will inevitably occur even in properly operated control equipment. Because technology-based limitations require only what technology can achieve, it is claimed that liability for such situations is improper. When confronted with this issue, courts have disagreed on whether an explicit upset or excursion exemption is necessary, or whether upset or excursion incidents may be handled through EPA's exercise of enforcement discretion. Compare *Marathon Oil Co. v. EPA*, 564 F. 2d 1253 (9th Cir. 1977) with *Weyerhaeuser v. Costle*, 590 F. 2d 1011 (D.C. Cir. 1978) and *Corn Refiners Assn., et al. v. Costle*, 594 F. 2d 1223 (8th Cir. 1979). [See also *American Petroleum Institute v. EPA*, 540 F. 2d 1023 (10th Cir. 1976); *CPC International, Inc. v. Train*, 540 F. 2d 1320 (8th Cir. 1976); *FMC Corp. v. Train*, 539 F. 2d 973 (4th Cir. 1976).]

An upset is an unintentional episode during which effluent limits are exceeded; a bypass, however, is an act of intentional noncompliance during which waste treatment facilities are circumvented in emergency situations. We have, in the past, included bypass provisions in NPDES permits.

We determined that both upset and bypass provisions should be included in NPDES permits and have promulgated Consolidated Permit Regulations that include upset and bypass provisions. (See 40 CFR 122.60, 45 FR 33290 (May 19, 1980).) The upset provision establishes an upset as an affirmative defense to

prosecution for violation of technology-based effluent limitations. The bypass provision authorizes bypassing to prevent loss of life, personal injury, or severe property damage. Consequently, although permittees in the textile mills industry will be entitled to upset and bypass provisions in NPDES permits, this final regulation does not address these issues.

XI. Variances and Modifications

Upon the promulgation of this regulation, the effluent limitations for the appropriate subcategory must be applied in all Federal and State NPDES permits thereafter issued to direct dischargers in the textile industry. For the BPT effluent limitations, the only exception to the binding limitations is EPA's "fundamentally different factors" variance. [See *E.I. du Pont de Nemours & Co. v. Train*, 430 U.S. 112 (1977); *Weyerhaeuser Co. v. Costle*, *supra*.] This variance recognizes factors concerning a particular discharger that are fundamentally different from the factors considered in this rulemaking. Although this variance clause was set forth in EPA's 1973-1976 industry regulations, it is now included in the NPDES regulations and will not be included in the textile or other industry regulations. (See the NPDES regulations at 40 CFR Part 125, Subpart D.)

The BAT limitations in this regulation are also subject to EPA's "fundamentally different factors" variance. BAT limitations for nonconventional pollutants are subject to modifications under Sections 301(c) and 301(g) of the Act. These statutory modifications do not apply to toxic or conventional pollutants. To apply for these modifications a discharger must be in compliance with BPT. Because this rule will make BAT equal to BPT, EPA does not expect any applications for section 301(c) or 301(g) modifications. [See 43 FR 40895 (September 13, 1978).]

NSPS are not subject to EPA's "fundamentally different factors" variance or any statutory or regulatory modifications. (See *E. I. du Pont de Nemours and Co. v. Train*, *supra*.)

XII. Relationship to NPDES Permits

The BPT and BAT limitations and NSPS in this regulation will be applied to individual textile mills through NPDES permits issued by EPA or approved State agencies, under section 402 of the Act. As discussed in the preceding section of this preamble, these limitations must be applied in all Federal and State NPDES permits except to the extent that variances and modifications are expressly authorized.

Other aspects of the interaction between these limitations and NPDES permits are discussed below.

One issue that warrants consideration is the effect of this regulation on the powers of NPDES permit-issuing authorities. The promulgation of this regulation does not restrict the power of any permitting authority to act in any manner consistent with law or these or any other EPA regulations, guidelines, or policy. For example, even if this regulation does not control a particular pollutant, the permit-issuer may still limit such pollutant on a case-by-case basis when limitations are necessary to carry out the purposes of the Act. Where manufacturing practices or treatment circumstances warrant additional controls, such limitations may be technology-based in conformance with the legislative history of the Act. However, such limitations are subject to administrative and judicial review as part of the permit issuance process. In addition, to the extent that State water quality standards or other provisions of State or Federal law require limitation of pollutants not covered by this regulation (or require more stringent limitations on covered pollutants), such limitations must be applied by the permit-issuing authority.

A second topic that warrants discussion is the operation of EPA's NPDES enforcement program, many aspects of which were considered in developing this regulation. We emphasize that although the Clean Water Act is a strict liability statute, the initiation of enforcement proceedings by EPA is discretionary. We have exercised and intend to exercise that discretion in a manner that recognizes and promotes good-faith compliance efforts and conserves enforcement resources for those who fail to make good-faith efforts to comply with the Act.

XIII. Public Participation and Summary of the Major Issues

Numerous agencies and groups participated during this study of the textile mills point source category. The Agency solicited public comment on the proposed rules and the notice of availability of additional information published in the *Federal Register* on October 29, 1979, and January 27, 1981, respectively. In addition, the Agency accepted public comment on the development document and economic analysis supporting the proposed rules. The Agency received one hundred and twenty comment submittals. Also, on February 15, 1980, in Washington, D.C., the Agency held a public hearing on the proposed regulations for the textile industry.

Individual public comments received on the proposed regulation, and our responses, are presented in a report, "Responses to Public Comments, Proposed Textile Industry Effluent Guidelines and Standards," August 1982, which is part of the public record for this regulation. A summary of the major comments and the Agency's responses follow.

1. *Comment:* Toxic pollutants are not present in textile wastewaters in significant amounts, the proposed BAT limits are not cost beneficial and further control beyond existing BPT is not warranted.

Response: The Clean Water Act (Pub. L. 95-217) and the Settlement Agreement require the Agency to establish technology-based effluent limitations and standards for each of 21 industrial categories, including the textile mills point source category. However, as discussed previously, Paragraph 8 of the Settlement Agreement authorizes the Administrator to exclude subcategories or pollutants from regulation under certain conditions where development of national regulations is not justified. Since proposal, we have reconsidered the total amount of toxic pollutants discharged from the textile industry when BPT is attained, the cost per pound of toxic pollutants removed at proposed BAT, the treatability of toxic pollutants that remain in textile discharges after application of biological treatment and the economic impact that would result from the implementation of proposed BAT limitations. In reviewing all available data, we have concluded that further regulation of the textile industry is not warranted. Therefore, we are establishing BAT limitations equal to previously promulgated BPT limitations.

2. *Comment:* The low levels of metals present in textile wastewaters do not interfere with the operation of publicly owned treatment works (POTWs) or the use and disposal of POTW sludge. Therefore, categorical pretreatment standards are unnecessary.

Response: We are unaware of any documented instance of POTW interference because of the impact of toxic or nonconventional pollutant discharges from textile mills. While the potential exists for interference in individual cases where little dilution occurs, these interference problems, should they exist, are more appropriately handled at the local level. We have also determined that textile wastewaters are susceptible to treatment in POTWs and that toxic pollutants found in mill discharges are unlikely to pass through POTWs.

Therefore, there is no need to establish categorical pretreatment standards for this industry. The indirect dischargers are, however, subject to the General Pretreatment Regulations (40 CFR Part 403).

3. *Comment:* The proposed NSPS, based on the application of coagulation and filtration of biologically-treated effluent, are too stringent; NSPS should be based on the same technology as proposed BAT (biological treatment plus filtration).

Response: NSPS are being promulgated based on the application of biological treatment, rather than more advanced technology (i.e., filtration or chemical coagulation). Biological treatment provides adequate control of the discharge of toxic pollutants and results in a significant reduction of nonconventional and conventional pollutants. Application of this technology level will not change the rate of entry into the industry or slow the industry growth rate. Promulgated NSPS are more stringent than BPT effluent limitations. Specific standards are generally based on the median discharge levels attained at existing best performers in each subcategory of the textile industry. This level of control represents the best demonstrated performance of existing biological treatment systems in this industry.

4. *Comment:* The Agency did not have sufficient information and data available to support the proposed effluent limitations and standards.

Response: Proposed limitations were based on all information available to the Agency prior to proposal. The Agency reviewed the information from previous studies of the industry, the Census of Manufactures and the industry's commercial directory. We requested detailed information on about 1150 mills, including 600 low water use processing facilities. EPA and its contractors conducted visits, sampled fifty mills and participated in numerous meetings with individuals and industry committees. The Agency actively solicited industry comments and suggestions over the course of this study. Our approach has assured the availability of sufficient information on the performance of treatment technologies and the presence of toxic pollutants to enable the Agency to make sound regulatory decisions. The development document supporting these rules includes a comprehensive description of the information used to develop the limitations and standards and to support our decision that no further regulation of the textile industry is warranted. All available information and data are included in the record and

are available for review by interested parties.

5. *Comment:* The technologies identified as the basis of the proposed BAT limitations cannot achieve and maintain this level of control.

Response: Proposed BAT limitations were based on the Agency's evaluation of all available treatment performance data, both full-scale and pilot-scale, including the results of the EPA/Industry BATEA Pilot Plant Research Project. Our methodology assumed that mills were already achieving BPT, since existing plants were required to comply with BPT by July 1, 1977. The results of our analysis of all available treatment performance data indicated that the technologies on which proposed BAT limitations were based were capable of effectively controlling pollutants discharged in textile wastewaters to the levels specified in the proposed rules or as modified in the notice of availability of additional information.

6. *Comment:* A definite relationship has not been established between TSS and toxic organic pollutants. Therefore, the use of TSS as an indicator for the presence of toxic organic pollutants is inappropriate. In addition, TSS violations are likely to result from normal variations in treatment system performance that have no relation to the discharge of toxic pollutants.

Response: At proposal, the Agency was aware that filtration of biologically-treated textile wastewaters reduces the amount of toxic organic pollutants discharged. Therefore, by removing additional quantities of TSS, toxic organic pollutants would also be removed. The proposed use of an indicator was intended to obviate the expensive analytical procedures for measuring toxic organic pollutants present in textile wastewaters. Since proposal, as discussed previously, the Agency has decided not to impose specific controls on the discharge of toxic organic pollutants or to require attainment of BAT limitations for an indicator pollutant (i.e., TSS). Therefore, this comment and many others both favoring or opposing the use of TSS as an indicator pollutant are no longer germane.

7. *Comment:* All color limitations should be eliminated from the final regulation. Problems related to color discharged by the textile industry should be handled on a case-by-case basis by local authorities.

Response: The Agency has decided not to establish either BAT effluent limitations or NSPS for color. The decision is based on an evaluation of color discharged by the textile industry in terms of its national significance.

Color, in many instances, is simply an aesthetic pollutant. In some cases, it has been shown that color can interfere with the transmission of sunlight and the process of photosynthesis in the aquatic environment. In the textile industry, color is a mill-specific problem related to the combination of dyes and finishing chemicals used. For this reason, EPA feels that color should be controlled on a case-by-case basis by local authorities as dictated by water quality considerations.

8. *Comment:* An industry-sponsored economic analysis shows that the impacts of the proposed rules are considerably greater than those indicated by the Agency's economic impact analysis.

Response: We have carefully reviewed the industry's analysis. We have determined that the differences in conclusions between the industry-sponsored analysis and the Agency's economic impact analysis are mainly attributable to (1) higher compliance cost estimates in the industry's analysis, and (2) the aggregation scheme used to project impacts for the total industry from a sample of plants. The estimated compliance costs of attaining proposed BAT limitations in the industry's analysis, when aggregated to the total industry, were nearly five times higher than the Agency's estimates. This is due, in part, to a more limited data base, the cost estimation procedure, and including the costs of achieving both BPT and proposed BAT levels of control. The Agency's analysis is based on a larger data base, and uses a model plant analysis that accounts for the number and size distribution of plants in each subcategory. In addition, the Agency's analysis does not include the costs of achieving the BPT level of control because BPT was already to have been achieved by July 1977. The aggregation scheme in the industry's analysis is a simple extrapolation that overestimated the size of the industry by using a data base that is biased toward large plants. These differences in compliance costs and in methodology result in higher projections of plant closures and unemployment impacts in the industry's analysis. The Agency's analysis is based on a more representative data base, and the methodological assumptions are better supported by financial information about the industry. Thus, we believe the Agency's analysis presents an accurate assessment of the impacts of achieving the proposed BAT level of control.

9. *Comment:* If production processes employed at an individual mill are characteristic of more than one subcategory, the allowable discharge of

pollutants should be determined by proration. Proration provides a more equitable method for determining allowable discharge levels than basing the total allowable discharge on the predominant operation.

Response: The development document supporting the 1974 BPT limitations includes the recommendation that allowable discharge levels be established by proration. Therefore, we recommend that this practice continue in the development of BAT permits because BAT limitations are being established equal to BPT. NSPS are based on the best performance of existing biological treatment systems applied within each specific subcategory. We encourage new source permits to be established by proration. Therefore, if more than one production process is employed at a new source direct discharger, the total allowable discharge should be determined by multiplying the production associated with each subcategory by the appropriate standard for each subcategory.

10. *Comment:* Promulgated standards should allow an additional discharge allowance if at least fifty percent of a facility's production is commission finishing.

Response: Since proposal, the Agency has reviewed available data to determine the need for an additional allowance for mills where commission finishing is practiced. The results show that raw waste characteristics for commission finishers are not substantially different than for other mills. In fact, in some subcategories, raw waste loadings for commission finishers are lower than for some other mills where commission finishing is not employed. Therefore, the Agency is not providing an allowance for commission finishing in promulgated NSPS.

Current BPT limitations allow an additional discharge allowance for commission finishing. The Agency has not investigated the economic impact on existing mills of the elimination of the commission finishing allowance. Because the Agency is establishing BAT limitations equal to BPT limitations for the textile industry, the Agency has decided that existing dischargers shall still be entitled to this allowance.

11. *Comment:* The low water use processing subcategory is very broad. The information presented in the proposed development document fails to assess adequately all processes, particularly in the areas of functional finishing and fabric coating. Allowances should be made for greige mills having

more than simple rinse water discharges.

Response: The low water use subcategory is established to include textile mills that engage in textile processing operations where process water volume requirements are minimal. Examples include production of greige goods, laminating or coating fabrics and tire cord fabric; texturizing of yarn; and tufting or backing of carpet. Wastewaters discharged from plants in this subcategory are primarily composed of nonprocess waters from lavatories and food preparation/consumption areas, boiler blowdown and noncontact cooling water. The process related wastewater is usually less than 20 percent of the total discharge volume. In cases where a portion of a mill's production is in the low water use subcategory and a portion is in another subcategory, e.g., woven fabric—complex manufacturing operations, the total allowable discharge of regulated pollutants should be calculated by prorating the production between the appropriate subcategories.

We have developed limitations for the water jet weaving segment of the low water use processing subcategory. Water jet weaving is a relatively new weaving technology; it is included as a subdivision of the low water use processing subcategory because it is used to produce greige goods. Water jet weaving generates more wastewater per unit of production than other low water use operations and separate limitations have been developed to account for this difference.

XIV. Small Business Administration (SBA) Financial Assistance

The Agency is continuing to encourage small manufacturers to use Small Business Administration (SBA) financing as needed for pollution control equipment. Three basic programs are in effect: the Guaranteed Pollution Control Program, the Section 503 Program, and the Regular Guarantee Program. All the SBA loan programs are only open to businesses with net assets less than \$6 million, with an average annual after-tax income of less than \$2 million and with fewer than 250 employees.

The guaranteed pollution control program authorizes the SBA to guarantee the payments on qualified contracts entered into by eligible small businesses to acquire needed pollution control facilities when the financing is provided through pollution control bonds, bank loans and debentures. Financing with SBA's guarantee of payment makes available long-term financing comparable with market rates.

The program applies to projects that cost from \$150,000 to \$200,000.

The Section 503 Program, as amended in July 1980, allows for long-term loans to small and medium-sized businesses. These loans are made by SBA-approved local development companies, which for the first time are authorized to issue Government-backed debentures that are bought by the Federal Financing Bank, an arm of the U.S. Treasury.

Through SBA's Regular Guarantee Program, loans are made available by commercial banks and are guaranteed by the SBA. This program has interest rates equivalent to market rates.

For additional information on the Regular Guarantee and Section 503 Programs contact your district or local SBA Office. The SBA coordinator at EPA headquarters is Ms. Frances Desselle who may be reached at (202) 426-7874.

For further information and specifics on the Guaranteed Pollution Control Program contact:

U.S. Small Business Administration,
Office of Pollution Control Financing,
4040 North Fairfax Drive, Rosslyn,
Virginia 22203, (703) 235-2902

XV. List of Subjects in 40 CFR Part 410

Textiles, Water pollution control, Waste treatment and disposal.

XVI. OMB Review

The regulation was submitted to the Office of Management and Budget for review as required by Executive Order 12291. This is not a major regulation as required by E.O. 12291.

Dated: August 27, 1982.

John W. Hernandez,
Acting Administrator.

Appendix A—Abbreviations, Acronyms and Other Terms Used in This Notice

Agency—The U.S. Environmental Protection Agency

BAT—The best available technology economically achievable, under section 301(b)(2)(A) of the Act

BCT—The best conventional pollutant control technology, under section 301(b)(2)(E) of the Act

BMPs—Best management practices, under section 304(e) of the Act

BPT—The best practicable control technology currently available, under section 301(b)(1)(A) of the Act

Clean Water Act—The Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251 *et seq.*), as amended by the Clean Water Act of 1977 (Pub. L. 95-217)

Direct discharger—A facility where wastewaters are discharged or may

be discharged into waters of the United States

Indirect discharger—A facility where wastewaters are discharged or may be discharged into a publicly owned treatment works

NPDES permit—A National Pollutant Discharge Elimination System permit issued under section 402 of the Act

NSPS—New source performance standards under section 306 of the Act

POTW (POTWs)—Publicly owned treatment works

PSES—Pretreatment standards for existing sources of indirect discharges, under section 307(b) of the Act

PSNS—Pretreatment standards for new sources of indirect discharges, under section 307(c) of the Act

RCRA—Resource Conservation and Recovery Act of 1976 (Pub. L. 94-580), Amendments to Solid Waste Disposal Act

The Act—The Clean Water Act of 1977

Appendix B—Toxic Pollutants Excluded

(1) Toxic pollutants present in trace amounts too small to be effectively reduced by the technologies known to the Administrator:

| | |
|------------------------|----------|
| 2,4,6-trichlorophenol | Copper |
| Chloroform | Cyanide |
| 1,2,4-trichlorobenzene | Lead |
| 1,2-dichlorobenzene | Mercury |
| Pentachlorophenol | Nickel |
| Parachlorometacresol | Selenium |
| Tetrachloroethylene | Silver |
| Arsenic | Zinc |
| Cadmium | |

(2) Toxic pollutants detected at only a small number of sources within a subcategory and uniquely related to those sources:

| | |
|---------------|----------|
| Acrylonitrile | Antimony |
|---------------|----------|

(3) Toxic pollutants effectively controlled by the technologies on which other effluent limitations and standards are based:

| | |
|-------------------|-------------|
| Benzene | Naphthalene |
| Trichloroethylene | Phenol |
| Ethylbenzene | Toluene |

(4) Toxic pollutant not detectable with the use of analytical methods approved pursuant to section 304(h) of the Act:

Bis(2-ethylhexyl)phthalate

Part 410 of Title 40 is revised to read as follows:

PART 410—TEXTILE MILLS POINT SOURCE CATEGORY

General Provisions

- Sec.
- 410.00 Applicability.
- 410.01 General definitions.
- 410.02 Monitoring requirements. [Reserved]

Subpart A—Wool Scouring Subcategory

- Sec.
410.10 Applicability; description of the wool scouring subcategory.
- 410.11 Specialized definitions.
- 410.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 410.13 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 410.14 Pretreatment standards for existing sources (PSES).
- 410.15 New source performance standards (NSPS).
- 410.16 Pretreatment standards for new sources (PSNS).
- 410.17 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart B—Wool Finishing Subcategory

- 410.20 Applicability; description of the wool finishing subcategory.
- 410.21 Specialized definitions.
- 410.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 410.23 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 410.24 Pretreatment standards for existing sources (PSES).
- 410.25 New source performance standards (NSPS).
- 410.26 Pretreatment standards for new sources (PSNS).
- 410.27 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart C—Low Water Use Processing Subcategory

- 410.30 Applicability; description of the low water use processing subcategory.
- 410.31 Specialized definitions.
- 410.32 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 410.33 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 410.34 Pretreatment standards for existing sources (PSES).
- 410.35 New source performance standards (NSPS).
- 410.36 Pretreatment standards for new sources (PSNS).
- 410.37 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional

pollutant control technology (BCT).
[Reserved]

Subpart D—Woven Fabric Finishing Subcategory

- Sec.
410.40 Applicability; description of the woven fabric finishing subcategory.
- 410.41 Specialized definitions.
- 410.42 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 410.43 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 410.44 Pretreatment standards for existing sources (PSES).
- 410.45 New source performance standards (NSPS).
- 410.46 Pretreatment standards for new sources (PSNS).
- 410.47 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart E—Knit Fabric Finishing Subcategory

- 410.50 Applicability; description of the knit fabric finishing subcategory.
- 410.51 Specialized definitions.
- 410.52 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 410.53 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 410.54 Pretreatment standards for existing sources (PSES).
- 410.55 New source performance standards (NSPS).
- 410.56 Pretreatment standards for new sources (PSNS).
- 410.57 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart F—Carpet Finishing Subcategory

- 410.60 Applicability; description of the carpet finishing subcategory.
- 410.61 Specialized definitions.
- 410.62 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 410.63 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 410.64 Pretreatment standards for existing sources (PSES).
- 410.65 New source performance standards (NSPS).
- 410.66 Pretreatment standards for new sources (PSNS).

- Sec.
410.67 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart G—Stock and Yarn Finishing Subcategory

- 410.70 Applicability; description of the stock and yarn finishing subcategory.
- 410.71 Specialized definitions. [Reserved]
- 410.72 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 410.73 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 410.74 Pretreatment standards for existing sources (PSES).
- 410.75 New source performance standards (NSPS).
- 410.76 Pretreatment standards for new sources (PSNS).
- 410.77 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart H—Nonwoven Manufacturing Subcategory

- 410.80 Applicability; description of the nonwoven manufacturing subcategory.
- 410.81 Specialized definitions. [Reserved]
- 410.82 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 410.83 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 410.84 Pretreatment standards for existing sources (PSES).
- 410.85 New source performance standards (NSPS).
- 410.86 Pretreatment standards for new sources (PSNS).
- 410.87 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart I—Felted Fabric Processing Subcategory

- 410.90 Applicability; description of the felted fabric processing subcategory.
- 410.91 Specialized definitions. [Reserved]
- 410.92 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 410.93 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

- Sec.
 410.94 Pretreatment standards for existing sources (PSES).
 410.95 New source performance standards (NSPS).
 410.96 Pretreatment standards for new sources (PSNS).
 410.97 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).
 [Reserved]

Authority: Secs. 301, 304(b), (c), (e), and (g), 306(b) and (c), 307(b) and (c), and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, as amended by the Clean Water Act of 1977) (the "Act"); 33 United States C. 1311, 1314(b), (c), (e), and (g), 1316(b) and (c), 1317(b) and (c), and 1361; 86 Stat. 186 et seq., Pub. L. 92-500; 91 Stat. 1567, Pub. L. 95-217.

General Provisions

§ 410.00 Applicability.

This part applies to any textile mill or textile processing facility which discharges or may discharge process wastewater pollutants to the waters of the United States, or which introduces or may introduce process wastewater pollutants into a publicly owned treatment works.

§ 410.01 General definitions.

In addition to the definitions set forth in 40 CFR Part 401, the following definitions apply to this part:

(a) "Sulfide" shall mean total sulfide (dissolved and acid soluble) as measured by the procedures listed in 40 CFR Part 136.

(b) "Phenols" shall mean total phenols as measured by the procedure listed in 40 CFR Part 136.

(c) Total Chromium shall mean hexavalent and trivalent chromium as measured by the procedures listed in 40 CFR Part 136.

(d) The term "commission finishing" shall mean the finishing of textile materials, 50 percent or more of which are owned by others, in mills that are 51 percent or more independent (i.e., only a minority ownership by company(ies) with greige or integrated operations); the mills must process 20 percent or more of their commissioned production through batch, noncontinuous processing operations with 50 percent or more of their commissioned orders processed in 5000 yard or smaller lots.

(e) The term "product," except where a specialized definition is included in the subpart, shall mean the final material produced or processed at the mill.

§ 410.02 Monitoring requirements. [Reserved]

Subpart A—Wool Scouring Subcategory

§ 410.10 Applicability; description of the wool scouring subcategory.

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

§ 410.11 Specialized definitions.

In addition to the definitions set forth in 40 CFR Part 401 and § 410.01 of this Part, the following definitions apply to this subpart:

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

(b) The term "oil and grease" shall mean total recoverable oil and grease as measured by the procedure listed in 40 CFR Part 136.

(c) The term "commission scouring" shall mean the scouring of wool, 50 percent or more of which is owned by others, in mills that are 51 percent or more independent (i.e., only a minority ownership by company(ies) with greige or integrated operations); the mills must process 20 percent or more of their commissioned production through batch, noncontinuous processing operations.

§ 410.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

(a) Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|--|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of wool | |
| BOD5..... | 10.6 | 5.3 |
| COD..... | 138.0 | 69.0 |
| TSS..... | 32.2 | 16.1 |
| Oil and grease..... | 7.2 | 3.6 |
| Sulfide..... | 0.20 | 0.10 |
| Phenol..... | 0.10 | 0.05 |
| Total chromium..... | 0.10 | 0.05 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

(b) Additional allocations equal to the effluent limitations established in

paragraph (a) of this section are allowed any existing point source subject to such effluent limitations that scours wool through "commission scouring" as defined in § 410.11.

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

(a) Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|--|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of wool | |
| COD..... | 138.0 | 69.0 |
| Sulfide..... | 0.20 | 0.10 |
| Phenols..... | 0.10 | 0.05 |
| Total chromium..... | 0.10 | 0.05 |

(b) Additional allocations equal to the effluent limitations established in paragraph (a) of this section are allowed any existing point source subject to such effluent limitations that scours wool through "commission scouring" as defined in § 410.11.

§ 410.14 Pretreatment standards for existing sources (PSES).

Any existing source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.15 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

| Pollutant or pollutant property | NSPS | |
|---------------------------------|--|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of wool | |
| BOD5..... | 3.6 | 1.9 |
| COD..... | 52.4 | 33.7 |
| TSS..... | 30.3 | 13.5 |
| Sulfide..... | 0.20 | 0.10 |

| Pollutant or pollutant property | NSPS | |
|---------------------------------|--|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (pounds per 1,000 lb) of product | |
| Phenols..... | 0.10 | 0.05 |
| Total chromium..... | 0.10 | 0.05 |
| pH..... | (1) | (1) |

¹Within the range 6.0 to 9.0 at all times.
NOTE.—Additional allocations for "commission scouring" are not available to new sources.

§ 410.16 Pretreatment standards for new sources (PSNS).

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.17 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart B—Wool Finishing Subcategory

§ 410.20 Applicability; description of the wool finishing subcategory.

The provisions of this subpart are applicable to process wastewater discharges resulting from the following types of textile mills: wool finishers, including carbonizing, fulling, dyeing, bleaching, rinsing, fireproofing, and other such similar processes.

§ 410.21 Specialized definitions.

In addition to the definitions set forth in 40 CFR Parts 401 and § 410.01 of this Part, the following definition applies to this subpart:

(a) The term "fiber" shall mean the dry wool and other fibers as received at the wool finishing mill for processing into wool and blended products.

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

(a) Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|--|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pound per 1,000 lb) of fiber | |
| BOD5..... | 22.4 | 11.2 |
| COD..... | 163.0 | 81.5 |
| TSS..... | 35.2 | 17.6 |
| Sulfide..... | 0.28 | 0.14 |
| Phenol..... | 0.14 | 0.07 |
| Total chromium..... | 0.14 | 0.07 |
| pH..... | (1) | (1) |

¹Within the range 6.0 to 9.0 at all times.

(b) Additional allocations equal to the effluent limitations established in paragraph (a) of this section are allowed any existing point source subject to such effluent limitations that finishes wool or blended wool fabrics through "commission finishing" as defined in § 410.01.

§ 410.23 Effluent limitation representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

(a) Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

| Pollutant or pollutant property | BAT limitation | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of fiber | |
| COD..... | 163.0 | 81.5 |
| Sulfide..... | 0.28 | 0.14 |
| Phenols..... | 0.14 | 0.07 |
| Total Chromium..... | 0.14 | 0.07 |

(b) Additional allocations equal to the effluent limitations established in paragraph (a) of this section are allowed any existing point source subject to such effluent limitations that finishes wool or blended wool fabrics through "commission finishing" as defined in § 410.01.

§ 410.24 Pretreatment standards for existing sources (PSES).

Any existing source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.25 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

| Pollutant or pollutant property | NSPS | |
|---------------------------------|--------------------------------------|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (pounds per 1,000 lb) of fiber | |
| BOD5..... | 10.7 | 5.5 |
| COD..... | 113.8 | 73.3 |
| TSS..... | 32.3 | 14.4 |
| Sulfide..... | 0.28 | 0.14 |
| Phenols..... | 0.14 | 0.07 |
| Total Chromium..... | 0.14 | 0.07 |
| pH..... | (1) | (1) |

Note: Additional allocations for "commission finishers" are not available to new sources.
¹Within the range 6.0 to 9.0 at all times.

§ 410.26 Pretreatment standards for new sources (PSNS).

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.27 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart C—Low Water Use Processing Subcategory

§ 410.30 Applicability; description of the low water use processing subcategory.

The provisions of this subpart are applicable to process wastewater discharges resulting from the following types of textile mills: yarn manufacture, yarn texturizing, unfinished fabric manufacture, fabric coating, fabric laminating, tire cord and fabric dipping, and carpet tufting and carpet backing. Rubberized or rubber coated fabrics regulated by 40 CFR Part 428 are specifically excluded.

§ 410.31 Specialized definitions.

In addition to the definitions set forth in 40 CFR Part 401 and § 410.01 of this Part, the following definitions apply to this subpart:

(a) The term "general processing" shall mean the internal subdivision of the low water use processing subcategory for facilities described in § 410.30 that do not qualify under the water jet weaving subdivision.

(b) The term "water jet weaving" shall mean the internal subdivision of the low water use processing subcategory for

facilities primarily engaged in manufacturing woven greige goods through the water jet weaving process.

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

Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BPT):

| GENERAL PROCESSING | | |
|--|-----------------------|---|
| Pollutant or pollutant property | BPT limitations | |
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Kg/kg (pounds per 1,000 lb) of product | | |
| BOD5..... | 1.4 | 0.7 |
| COD..... | 2.8 | 1.4 |
| TSS..... | 1.4 | 0.7 |
| ph..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

| WATER JET WEAVING | | |
|--|-----------------------|---|
| Pollutant or pollutant property | BPT limitations | |
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Kg/kg (pounds per 1,000 lb) of product | | |
| BOD5..... | 8.9 | 4.6 |
| COD..... | 21.3 | 13.7 |
| TSS..... | 5.5 | 2.5 |
| ph..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

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

Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

| GENERAL PROCESSING | | |
|--|-----------------------|---|
| Pollutant or pollutant property | BAT limitations | |
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Kg/kg (pounds per 1,000 lb) of product | | |
| COD..... | 2.8 | 1.4 |

| WATER JET WEAVING | | |
|--|-----------------------|---|
| Pollutant or pollutant property | BAT limitations | |
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Kg/kg (pounds per 1,000 lb) of product | | |
| COD..... | 21.3 | 13.7 |

§ 410.34 Pretreatment standards for existing sources (PSES).

Any existing source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.35 New source performance standards (NSPS)

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

| GENERAL PROCESSING | | |
|--|-----------------------|---|
| Pollutant or pollutant property | NSPS | |
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Kg/kg (pounds per 1,000 lb) of product | | |
| BOD ^a | 1.4 | 0.7 |
| COD..... | 2.8 | 1.4 |
| TSS..... | 1.4 | 0.7 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

| WATER JET WEAVING | | |
|--|-----------------------|---|
| Pollutant or pollutant property | NSPS | |
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Kg/kg (pounds per 1,000 lb) of product | | |
| BOD5..... | 8.9 | 4.6 |
| COD..... | 21.3 | 13.7 |
| TSS..... | 5.5 | 2.5 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

§ 410.36 Pretreatment standards for new sources (PSNS).

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.37 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart D—Woven Fabric Finishing Subcategory

§ 410.40 Applicability; description of the woven fabric finishing subcategory.

The provisions of this subpart are applicable to process wastewater 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, mercerizing, dyeing, printing, resin treatment, water proofing, flame proofing, soil repellency application and a special finish application.

§ 410.41 Specialized definitions.

In addition to the definitions set forth in 40 CFR Part 401 and § 410.01 of this Part the following definitions apply to this subpart:

(a) The term "simple manufacturing operation" shall mean all the following unit processes: desizing, fiber preparation and dyeing.

(b) The term "complex manufacturing operation" shall mean "simple" unit processes (desizing, fiber preparation and dyeing) plus any additional manufacturing operations such as printing, water proofing, or applying stain resistance or other functional fabric finishes.

(c) For NSPS (§ 410.45) the term "desizing facilities" shall mean those facilities that desize more than 50 percent of their total production. These facilities may also perform other processing such as fiber preparation, scouring, mercerizing, functional finishing, bleaching, dyeing and printing.

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

(a) Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent

reduction attainable by the application of the best practicable control technology currently available (BPT):

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|--|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kkg (or pounds per 1,000 lb) of product | |
| BOD5..... | 8.8 | 3.3 |
| COD..... | 60.0 | 30.0 |
| TSS..... | 17.8 | 8.9 |
| Sulfide..... | 0.20 | 0.10 |
| Phenol..... | 0.10 | 0.05 |
| Total Chromium..... | 0.10 | 0.05 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

(b) Except as provided in paragraph (e) of this section for commission finishing operations, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the finishing of woven fabrics through simple manufacturing operations employing a synthetic fiber or through complex manufacturing operations employing a natural fiber, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this section.

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|--|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kkg (or pounds per 1,000 lb) of product | |
| COD..... | 20.0 | 10.0 |

(c) Except as provided in paragraph (e) of this section for commission finishing operations, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the finishing of woven fabrics through simple manufacturing operations employing a natural and synthetic fiber blend or through complex manufacturing operations employing a synthetic fiber, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this section.

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|--|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kkg (or pounds per 1,000 lb) of product | |
| COD..... | 40.0 | 20.0 |

(d) Except as provided in paragraph (e) of this section for commission finishing operations, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the finishing of woven fabrics through complex manufacturing operations employing a natural and synthetic fiber blend, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this subpart.

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kkg (or pound per 1,000 lb) of product | |
| COD..... | 60.0 | 30.0 |

(e) Additional allocations equal to the effluent limitations established in paragraph (a) of this section are allowed any existing point source subject to such effluent limitations that finishes woven fabrics through "commission finishing" as defined in § 410.01.

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

(a) Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kkg (or pound per 1,000 lb) of product | |
| COD..... | 60.0 | 30.0 |

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|-----------------------|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Sulfide..... | 0.20 | 0.10 |
| Phenols..... | 0.10 | 0.05 |
| Total Chromium..... | 0.10 | 0.05 |

(b) Except as provided in paragraph (e) of this section for commission finishing operations, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the finishing of woven fabrics through simple manufacturing operations employing a synthetic fiber or through complex manufacturing operations employing a natural fiber, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this section.

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|--|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kkg (or pounds per 1,000 lb) of product | |
| COD..... | 20.0 | 10.0 |

(c) Except as provided in paragraph (e) of this section for commission finishing operations, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the finishing of woven fabrics through simple manufacturing operations employing a natural and synthetic fiber blend or through complex manufacturing operations employing a synthetic fiber, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this section.

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|--|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kkg (or pounds per 1,000 lb) of product | |
| COD..... | 40.0 | 20.0 |

(d) Except as provided in paragraph (e) of this section for commission finishing operations, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the finishing of woven fabrics through complex manufacturing operations employing a natural and synthetic fiber blend, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this subpart.

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| COD..... | 60.0 | 30.0 |

(e) Additional allocations equal to the effluent limitations established in paragraph (a) of this section are allowed any existing point source subject to such effluent limitations that finishes woven fabrics through "commission finishing" as defined in § 410.01.

§ 410.44 Pretreatment standards for existing sources (PSES).

Any existing source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.45 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

SIMPLE MANUFACTURING OPERATIONS

| Pollutant or pollutant property | NSPS | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD5..... | 3.3 | 1.7 |
| COD..... | 41.7 | 26.9 |
| TSS..... | 8.8 | 3.9 |
| Sulfide..... | 0.20 | 0.10 |
| Phenols..... | 0.10 | 0.05 |
| Total Chromium..... | 0.10 | 0.05 |
| pH ¹ | (1) | (1) |

¹ Within the range 6.0 to 9.0 at all times.
NOTE.—Additional allocations for "commission finishers" are not available to new sources.

COMPLEX MANUFACTURING OPERATIONS

| Pollutant or pollutant property | NSPS | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD5..... | 3.7 | 1.9 |
| COD..... | 68.7 | 44.2 |
| TSS..... | 14.4 | 6.4 |
| Sulfide..... | 0.20 | 0.10 |
| Phenols..... | 0.10 | 0.05 |
| Total Chromium..... | 0.10 | 0.05 |
| pH ¹ | (1) | (1) |

¹ Within the range 6.0 to 9.0 at all times.
NOTE.—Additional allocations for "commission finishers" are not available to new sources.

DESIZING

| Pollutant or pollutant property | NSPS | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD5..... | 5.5 | 2.8 |
| COD..... | 59.5 | 38.3 |
| TSS..... | 15.6 | 6.9 |
| Sulfide..... | 0.20 | 0.10 |
| Phenols..... | 0.10 | 0.05 |
| Total Chromium..... | 0.10 | 0.05 |
| pH..... | (1) | (1) |

¹ Within the range 6.0 to 9.0 at all times.
NOTE.—Additional allocations for "commission finishers" are not available to new sources.

§ 410.46 Pretreatment standards for new sources (PSNS).

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.47 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart E—Knit Fabric Finishing Subcategory

§ 410.50 Applicability; description of the knit fabric finishing subcategory.

The provisions of this subpart are applicable to process wastewater discharges resulting from the following types of textile mills: knit fabric finishers, which may include any or all of the following unit operations: bleaching, mercerizing, dyeing, printing, resin treatment, water proofing, flame proofing, soil repellency application and a special finish application.

§ 410.51 Specialized definitions.

In addition to the definitions set forth in 40 CFR Part 401 and § 410.01 of this

Part, the following definitions apply to this subpart:

(a) The term "simple manufacturing operation" shall mean all the following unit processes: desizing, fiber preparation and dyeing.

(b) The term "complex manufacturing operation" shall mean "simple" unit processes (desizing, fiber preparation and dyeing) plus any additional manufacturing operations such as printing, water proofing, or applying stain resistance or other functional fabric finishes.

(c) For NSPS (Section 410.55) the term "hosiery products" shall mean the internal subdivision of the knit fabric finishing subcategory for facilities that are engaged primarily in dyeing or finishing hosiery of any type.

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

(a) Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD5..... | 5.0 | 2.5 |
| COD..... | 60.0 | 30.0 |
| TSS..... | 21.8 | 10.9 |
| Sulfide..... | 0.20 | 0.10 |
| Phenols..... | 0.10 | 0.05 |
| Total chromium..... | 0.10 | 0.05 |
| pH..... | (1) | (1) |

¹ Within the range 6.0 to 9.0 at all times.

(b) Except as provided in paragraph (d) of this section for commission finishing operations, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the finishing of knit fabrics through simple manufacturing operations employing a natural and synthetic fiber or through complex manufacturing operations employing a synthetic fiber, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this section.

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| COD..... | 20.0 | 10.0 |

(c) Except as provided in paragraph (d) of this section for commission finishing operations, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the finishing of knit fabrics through complex manufacturing operations employing a natural and synthetic fiber blend, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this section.

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| COD..... | 40.0 | 20.0 |

(d) Additional allocations equal to the effluent limitations established in paragraph (a) of this section are allowed any existing point source subject to such effluent limitations that finishes knit fabrics through "commission finishing" as defined in § 410.01.

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

(a) Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| COD..... | 60.0 | 30.0 |

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|-----------------------|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Sulfide..... | 0.20 | 0.10 |
| Phenols..... | 0.10 | 0.05 |
| Total Chromium..... | 0.10 | 0.05 |

(b) Except as provided in paragraph (d) of this section for commission finishing operations, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the finishing of knit fabrics through simple manufacturing operations employing a natural and synthetic fiber or through complex manufacturing operations employing a synthetic fiber, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this section.

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| COD..... | 20.0 | 10.0 |

(c) Except as provided in paragraph (d) of this section for commission finishing operations, the following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the finishing of knit fabrics through complex manufacturing operations employing a natural and synthetic fiber blend, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this section.

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| COD..... | 40.0 | 20.0 |

(d) Additional allocations equal to the effluent limitations established in paragraph (a) of this section are allowed any existing point source subject to such effluent limitations that finishes knit

fabrics through "commission finishing" as defined in § 410.01.

§ 410.54 Pretreatment standards for existing sources (PSES).

Any existing source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.55 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

SIMPLE MANUFACTURING OPERATIONS

| Pollutant or pollutant property | NSPS | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD5..... | 3.6 | 1.9 |
| COD..... | 48.1 | 31.0 |
| TSS..... | 13.2 | 5.9 |
| Sulfide..... | 0.20 | 0.10 |
| Phenols..... | 0.10 | 0.05 |
| Total chromium..... | 0.10 | 0.05 |
| pH..... | (?) | (?) |

¹ Within the range 6.0 to 9.0 at all times.
NOTE.—Additional allocations for "commission finishers" are not available to new sources.

COMPLEX MANUFACTURING OPERATIONS

| Pollutant or pollutant property | NSPS | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD5..... | 4.8 | 2.5 |
| COD..... | 51.0 | 32.9 |
| TSS..... | 12.2 | 5.4 |
| Sulfide..... | 0.20 | 0.10 |
| Phenols..... | 0.10 | 0.05 |
| Total Chromium..... | 0.10 | 0.05 |
| pH..... | (1-) | (1-) |

¹ Within the range 6.0 to 9.0 at all times.
NOTE.—Additional allocations for "commission finishers" are not available to new sources.

HOSIERY PRODUCTS

| Pollutant or pollutant property | NSPS | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD5..... | 2.3 | 1.2 |
| COD..... | 30.7 | 19.8 |
| TSS..... | 8.4 | 3.7 |
| Sulfide..... | 0.20 | 0.10 |
| Phenols..... | 0.10 | 0.05 |
| Total Chromium..... | 0.10 | 0.05 |
| pH..... | (1-) | (1-) |

¹ Within the range 6.0 to 9.0 at all times.
NOTE.—Additional allocations for "commission finishers" are not available to new sources.

§ 410.56 Pretreatment standards for new sources (PSNS).

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.57 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart F—Carpet Finishing Subcategory

§ 410.60 Applicability; description of the carpet finishing subcategory.

The provisions of this subpart are applicable to process wastewater 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, waterproofing, flameproofing, soil repellency, looping, and backing with foamed and unfoamed latex and jute. Carpet backing without other carpet manufacturing operations is included in Subpart C.

§ 410.61 Specialized definitions.

In addition to the definitions set forth in 40 CFR Part 401 and § 410.01 of this Part, the following definitions apply to 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 "simple manufacturing operation" shall mean the following unit processes: fiber preparation and dyeing with or without carpet backing.

(c) The term "complex manufacturing operation" shall mean "simple" unit processes (fiber preparation, dyeing and carpet backing) plus any additional manufacturing operations such as printing or dyeing and printing.

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

(a) Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

| Pollutant or pollutant property | BPT limitations | |
|---|-----------------------|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Kg/kg (or pounds per 1,000 lb) of product | | |
| BOD5..... | 7.8 | 3.9 |
| COD..... | 70.2 | 35.1 |
| TSS..... | 11.0 | 5.5 |
| Sulfide..... | 0.08 | 0.04 |
| Phenol..... | 0.04 | 0.02 |
| Total Chromium..... | 0.04 | 0.02 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the manufacture of carpets through complex manufacturing operations, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this section.

| Pollutant or pollutant property | BPT limitations | |
|---|-----------------------|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Kg/kg (or pounds per 1,000 lb) of product | | |
| COD..... | 20.0 | 10.0 |

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

(a) Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

| Pollutant or pollutant property | BAT limitations | |
|---|-----------------------|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Kg/kg (or pounds per 1,000 lb) of product | | |
| COD..... | 70.2 | 35.1 |
| Sulfide..... | 0.08 | 0.04 |
| Phenols..... | 0.04 | 0.02 |
| Total chromium..... | 0.04 | 0.02 |

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section and attributable to the manufacture of carpets through complex manufacturing operations, which may be discharged by a point source subject to the provisions of this subpart, in addition to the discharge allowed by paragraph (a) of this section.

| Pollutant or pollutant property | BAT limitations | |
|---|-----------------------|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Kg/kg (or pounds per 1,000 lb) of product | | |
| COD..... | 20.0 | 10.0 |

§ 410.64 Pretreatment standards for existing sources (PSES).

Any existing source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.65 New source performance standards (NSPS).

Any new source subject to this subject must achieve the following new source performance standards (NSPS):

| Pollutant or pollutant property | NSPS limitations | |
|---|-----------------------|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| kg/kg (or pounds per 1,000 lb) of product | | |
| BOD5..... | 4.6 | 2.4 |
| COD..... | 26.6 | 17.1 |
| TSS..... | 8.6 | 3.8 |
| Sulfide..... | 0.08 | 0.04 |
| Phenols..... | 0.04 | 0.02 |
| Total chromium..... | 0.04 | 0.02 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

NOTE.—Additional allocations for "commission finishers" are not available to new sources.

§ 410.66 Pretreatment standards for new sources (PSNS).

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.67 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart G—Stock and Yarn Finishing Subcategory

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

The provisions of this subpart are applicable to process wastewater discharges resulting from the following types of textile mills: stock or yarn dyeing or 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. [Reserved]

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

(a) Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD5..... | 6.8 | 3.4 |
| COD..... | 84.6 | 42.3 |
| TSS..... | 17.4 | 8.7 |
| Sulfide..... | 0.24 | 0.12 |
| Phenol..... | 0.12 | 0.06 |
| Total chromium..... | 0.12 | 0.06 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

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

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| COD..... | 84.6 | 42.3 |
| Sulfide..... | 0.24 | 0.12 |
| Phenols..... | 0.12 | 0.06 |
| Total chromium..... | 0.12 | 0.06 |

§ 410.74 Pretreatment standards for existing sources (PSES).

Any existing source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.75 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

| Pollutant or pollutant property | NSPS | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD5..... | 3.6 | 1.9 |
| COD..... | 33.9 | 21.9 |
| TSS..... | 9.8 | 4.4 |
| Sulfide..... | 0.24 | 0.12 |
| Phenols..... | 0.12 | 0.06 |
| Total chromium..... | 0.12 | 0.06 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

NOTE.—Additional allocations for “commission finishers” are not available to new sources.

§ 410.76 Pretreatment standards for new sources (PSNS).

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.77 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart H—Nonwoven Manufacturing Subcategory

§ 410.80 Applicability; description of the nonwoven manufacturing subcategory.

The provisions of this subpart are applicable to process wastewater discharges resulting from facilities that primarily manufacture nonwoven textile products of wool, cotton, or synthetics,

singly or as blends, by mechanical, thermal, and/or adhesive bonding procedures. Nonwoven products produced by fulling and felting processes are covered in Subpart I—Felted Fabric Processing.

§ 410.81 Specialized definitions. [Reserved]

§ 410.82 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD5..... | 4.4 | 2.2 |
| COD..... | 40.0 | 20.0 |
| TSS..... | 6.2 | 3.1 |
| Sulfide..... | 0.046 | 0.023 |
| Phenol..... | 0.023 | 0.011 |
| Total chromium..... | 0.023 | 0.011 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

§ 410.83 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| COD..... | 40.0 | 20.0 |
| Sulfide..... | 0.046 | 0.023 |
| Phenols..... | 0.023 | 0.011 |
| Total chromium..... | 0.023 | 0.011 |

§ 410.84 Pretreatment standards for existing sources (PSES).

Any existing source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.85 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

| Pollutant or pollutant property | NSPS | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD ⁵ | 2.6 | 1.4 |
| COD..... | 15.2 | 9.8 |
| TSS..... | 4.9 | 2.2 |
| Sulfide..... | 0.046 | 0.023 |
| Phenols..... | 0.023 | 0.011 |
| Total Chromium..... | 0.023 | 0.011 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0 at all times.

NOTE.—Additional allocations for "commission finishers" are not available to new sources.

§ 410.86 Pretreatment standards for new sources (PSNS).

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.87 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart I—Felted Fabric Processing Subcategory

§ 410.90 Applicability; description of the felted fabric processing subcategory.

The provisions of this subpart are

applicable to process wastewater discharges resulting from facilities that primarily manufacture nonwoven products by employing fulling and felting operations as a means of achieving fiber bonding.

§ 410.91 Specialized definitions. [Reserved]

§ 410.92 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

| Pollutant or pollutant property | BPT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD ₅ | 35.2 | 17.6 |
| COD..... | 256.8 | 128.4 |
| TSS..... | 55.4 | 27.7 |
| Sulfide..... | 0.44 | 0.22 |
| Phenol..... | 0.22 | 0.11 |
| Total chromium..... | 0.22 | 0.11 |
| pH..... | (¹) | (¹) |

¹ Within the range 6.0 to 9.0.

§ 410.93 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30–125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

| Pollutant or pollutant property | BAT limitations | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| COD..... | 256.8 | 128.4 |
| Sulfide..... | 0.44 | 0.22 |
| Phenols..... | 0.22 | 0.11 |
| Total Chromium..... | 0.22 | 0.11 |

§ 410.94 Pretreatment standards for existing sources (PSES).

Any existing source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.95 New Source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

| Pollutant or pollutant property | NSPS | |
|---------------------------------|---|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | Kg/kg (or pounds per 1,000 lb) of product | |
| BOD ₅ | 16.9 | 8.7 |
| COD..... | 179.3 | 115.5 |
| TSS..... | 50.9 | 22.7 |
| Sulfide..... | 0.44 | 0.22 |
| Phenols..... | 0.22 | 0.11 |
| Total Chromium..... | 0.22 | 0.11 |
| pH..... | (¹) | (¹) |

¹ Within the range of 6.0 to 9.0 at all times.

NOTE.—Additional allocations for "commission finishers" are not available to new sources.

§ 410.96 Pretreatment standards for new sources (PSNS).

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR Part 403.

§ 410.97 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

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