

## Title 40—Protection of the Environment

## CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

## SUBCHAPTER N—EFFLUENT GUIDELINES AND STANDARDS

## PART 431—BUILDERS PAPER AND ROOFING FELT SEGMENT OF THE BUILDERS PAPER AND BOARD MILLS POINT SOURCE CATEGORY

## Subpart A—Builders Paper and Roofing Felt

On January 14, 1974 notice was published in the FEDERAL REGISTER (39 FR 1818) that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the builders paper and roofing felt subcategory of the builders paper and board mills category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the builders paper and board mills category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 431. This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended, (the Act); 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR Part 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the FEDERAL REGISTER, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the builders paper and roofing felt subcategory. In addition, the regulations as proposed were supported by two other documents: (1) The document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Builders Paper and Roofing Segment of the Builders Paper and Board Mills Point Source Category" (January 1974) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, Pulp, Paper, and Paperboard Industry" (Selected Segments) (September 1973). Both of these documents were made available to the public and circulated to

interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response there-to follows.

(a) *Summary of comments.* The following responded to the request for written comments contained in the preamble to the proposed regulations: The Brown Company, State of Colorado (Department of Public Health), National Council of the Paper Industry for Air and Stream Improvement, Inc., United States Department of the Interior, United States Department of Commerce.

Each of the comments was reviewed and analyzed carefully. The following is a summary of the significant comments and the Agency's response to those comments.

(1) One commenter suggested that a settleable solids limitation should be included in the guidelines. It was suggested that while mills with extensive water reuse may be able to meet the guidelines without external treatment, a settleable solids limitation is needed in order that the mills do not discharge their unsettled "bleed-off" waste water containing a heavy load of settleable solids without some form of primary treatment.

The Agency agrees with this comment, as mills with extensive water reuse and without any external treatment may be able to meet the proposed guidelines while still causing a sludge bed problem. To alleviate the potential for sludge bed buildup in receiving waters, a settleable solids limitation equivalent to primary treatment has been incorporated into the final regulations. The costs of the primary treatment necessary for these mills was initially incorporated in the economic impact analysis and thus, the addition of a settleable solids limitation does not affect the conclusions of the economic impact analysis.

(2) The comment was made that the potential for the elimination of wastewater discharge should be stressed as an alternative to external treatment. Also, suggestions for additions to the development document were submitted.

For this industry, a possible alternative to external treatment is extensive water reuse and there is a potential for the elimination of discharge. However, the technologies for the elimination of discharges are still in the development stage and such technologies cannot yet be considered to be available.

The suggestions for stressing extensive water reuse as a possible alternative to external treatment were incorporated into the development document.

(3) The concept of temperature variance was endorsed by several commenters. However, it was suggested that the variance should not be a one-step allowance at 35° F but should be progressive below 60° F to reflect the temperature effects on biological activity in treatment systems. Several methods of implementation were suggested.

The Agency believes that mills operating in Northern climates should design their treatment facilities to account for the effects of extremely cold temperatures upon effluent quality. In addition, other factors, such as raw waste load, appear to affect the final effluent quality as much as extremely cold temperatures. Therefore, the temperature variance was removed from the regulations, and the regulations were revised based upon the exemplary mills' maximum pollutant discharge period with emphasis placed upon exemplary mills operating in Northern climates. Thus, the revised regulations reflect the effects of temperature and other factors upon the final effluent quality.

(4) One commenter stated that it should be made clear in the development document that the technology of mixed-media filtration is in the development stages and not applicable to this category of discharges.

The Agency believes that the technology of mixed-media filtration has been successfully demonstrated in other industry categories and in the treatment of municipal wastes. The technology is judged to be transferrable to the builders paper and board industry category as the waste characteristics to which mixed-media filtration has been successfully applied are similar to those in builders paper and roofing felt mill effluents.

(5) One comment was made that the construction schedules for treatment systems as presented in the proposed development document do not consider many factors, such as review and negotiation, increasing delay in equipment delivery and the effects of climate upon construction.

The original intent of the inclusion of construction schedules was not to establish specific rules for construction but to present a basic example of what can be done and the amount of time that might be involved. The several factors mentioned were considered but it is recognized that factors such as increasingly slow equipment deliveries are difficult to predict. However, it is emphasized that the construction schedules are only guides and are considered valid for that purpose.

(6) One commenter anticipated that the mills cited as exemplary might be out of compliance with the proposed regulations a substantial percentage of the time.

This comment relates to the statistical approach which was used to determine the proposed guidelines. However, the guidelines were revised to reflect the removal of the temperature variance and the effect of other factors such as raw

waste upon final effluent quality. The revised guidelines were based on the maximum operating period of the exemplary mills which should insure that exemplary mills will meet the guidelines.

(7) The comment was made that the data base was insufficient to support the BPCTCA guidelines. Suggestions were submitted that provided a basis for a more accurate evaluation of available data.

The data base was derived from an extensive search for information and data as discussed in the Development Document. The Agency believes that the resulting data base is sufficient to support the guidelines. Data is nonexistent for many mills; however, the in-plant manufacturing processes are very similar between all mills in the builders paper and roofing felt segment, and the Agency feels that the available data adequately represents the industry.

(8) The comment was made that the selection of exemplary mills should be based upon external controls rather than internal controls.

It is the opinion of the Agency that the Act does not preclude considering some in-plant control changes as part of BPCTCA. Section 304(b)(1)(B) includes consideration of "the process employed" and "process changes" as part of the determination of BPCTCA. Where an in-plant change can be implemented by 1977 and meets the other requirements of section 304(b)(1), there is no reason to differentiate such control measure from any other control measure or practice imposed as part of BPCTCA. The in-plant changes which have been identified as available in 1977 are practices which are in common use in the industry.

(9) One commenter indicated that the economic impact to certain portions of the industry will be higher than indicated in the economic analysis. Specifically, the commenter objected to the conclusion that the guidelines would have no impact on the 25 percent of the builders paper and roofing felt industry which, while not now using municipal wastewater disposal systems, have access to them. The commenter stated that the mills will be required to pay user fees for access into the municipal systems, thereby having an economic impact.

The intent of indicating no economic impact upon those mills with access to municipal treatment was that the mills would not be impacted to the point of closure. The additional costs for these mills were initially incorporated into the economic impact analysis with regard to potential price effects.

(b) *Revision of the proposed regulation prior to promulgation.* As a result of public comments and continuing review and evaluation of the proposed regulations by the EPA, the following changes have been made in the regulation.

(1) A limitation on settleable solids equivalent to primary treatment was added to the regulations to prevent mills with extensive water reuse and no external treatment from discharging their

unsettled bleed-off waste water without any treatment.

(2) The temperature variance was removed and the guidelines were revised to reflect the effects of temperature and other factors upon final effluent quality.

(3) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(c) *Economic impact.* The changes that were made to the proposed regulations do not substantially affect the costs associated with treatment, and therefore do not alter the conclusions of the initial economic analysis. However, the economic impact has been revised to reflect the additional information received. As a result, a total of 3-4 small mills may be expected to close in the event of a recessionary period rather than the initial estimate which included an additional six mills, previously assessed to have a moderate probability of closure. The potential price increase has been presented as a range due to the cyclic nature of demand, and the resulting varying ability of the industry to pass on the cost of pollution control.

(d) *Cost-benefit analysis.* The detrimental effects of the constituents of waste waters now discharged by point sources within the builders paper and roofing felt segment of the builders paper and board mills manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the Builders Paper and Roofing Felt Manufacturing Segment of the Builders Paper and Board Mills Point Source Category" (May 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines Pulp, Paper and Paperboard Industry" (September 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing, and newly constructed plants in the pulp, paper, and paperboard industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

(e) *Solid waste control.* Solid waste control must be considered. The waterborne wastes from the builders paper and roofing felt industry may contain a considerable volume of metals in various forms as a part of the suspended solids pollutant. Best practicable control technology and best available control technology as they are known today, require disposal of the pollutants removed from waste waters in this industry in the form of solid wastes and liquid concentrates. In some cases these are nonhazardous substances requiring only minimal custodial care. However, some constituents may be hazardous and may require special consideration. In order to ensure long term protection of the environment from these hazardous or harmful constituents, special consideration of disposal sites must be made. All landfill sites where such hazardous wastes are disposed should be selected so as to prevent horizontal and vertical migration of these contaminants to ground or surface waters. In cases where geologic conditions may not reasonably ensure this, adequate precautions (e.g., impervious liners) should be taken to ensure long term protection to the environment from hazardous materials. Where appropriate, the location of solid hazardous materials disposal sites should be permanently recorded in the appropriate office of the legal jurisdiction in which the site is located.

(f) *Publication of information on processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants.* In conformance with the requirements of section 304(c) of the Act, a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Builders Paper and Roofing Felt Manufacturing Segment of the Builders Paper and Board Mills Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20402 for a nominal fee.

(g) *Final rulemaking.* In consideration of the foregoing, 40 CFR Chapter I, Subchapter N is hereby amended by adding

a new Part 431, Builders Paper and Roofing Felt Segment of the Builders Paper and Board Mills Point Source Category, to read as set forth below. An order of the Federal District Court for the District of Columbia entered in "NRDC v. Train" (Civ. No. 1609-73) on November 27, 1973, required that the Administrator sign final effluent limitations guidelines for this industry category by March 29, 1974. That order was subsequently modified on March 14, 1974, and the date for signing extended until May 13, 1974. Thereafter, on March 15, 1974, the District Court ordered that the effective date for effluent limitations guidelines established by its November 27 order remain applicable and not be affected by the extension in the publication date. The effective date for effluent limitations guidelines for this industry established by the Court's November 27 order is May 13, 1974. Accordingly, good cause is found for the final regulation promulgated as set forth below to be effective on May 9, 1974.

Dated: May 2, 1974.

JOHN QUARLES,  
Acting Administrator.

Subpart A—Builders Paper and Roofing Felt Subcategory

- Sec. 431.10 Applicability; description of the builders paper and roofing felt subcategory.
- 431.11 Specialized definitions.
- 431.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 431.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 431.14 [Reserved]
- 431.15 Standards of performance for new sources.
- 431.16 Pretreatment standards for new sources.

Subpart A—Builders Paper and Roofing Felt Subcategory

**AUTHORITY:** Secs. 301, 304(b), 304(c), 306(b), 306(c) and 307(c) Federal Water Pollution Control Act as amended 33 U.S.C. 1251, 1311, 1314(b), 1314(c), 1316(b), 1316(c), 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500.

§ 431.10 Applicability; description of the builders paper and roofing felt subcategory.

The provisions of this subpart are applicable to discharges resulting from the manufacture of saturating paper, flooring paper, deadening paper, and all other papers known as building papers or roofing felts.

§ 431.11 Specialized definitions.

For the purpose of this subpart:

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

(b) The term "settleable solids" shall mean the amount of settleable matter present in a sample as determined by the test as described in "Standard Methods for the Examination of Water and Waste Water," 13th Edition.

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

(a) In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategory and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

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

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD <sub>5</sub> .....	5.0	3.0
TSS.....	5.0	3.0
Settleable solids.....	Not to exceed 0.2 ml/l.	
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD <sub>5</sub> .....	10.0	6.0
TSS.....	10.0	6.0
Settleable solids.....	(1)	
pH.....	Within the range 6.0 to 9.0.	

<sup>1</sup> No comparable English units.

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

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

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD <sub>5</sub> .....	1.75	1.0
TSS.....	1.75	1.0
Settleable solids.....	Not to exceed 0.2 ml/l.	
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD <sub>5</sub> .....	3.5	2.0
TSS.....	3.5	2.0
Settleable solids.....	(1)	
pH.....	Within the range 6.0 to 9.0.	

<sup>1</sup> No comparable English units.

§ 431.14 [Reserved]

§ 431.15 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD <sub>5</sub> .....	1.75	1.0
TSS.....	1.75	1.0
Settleable solids.....	Not to exceed 0.2 ml/l.	
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD <sub>5</sub> .....	3.5	2.0
TSS.....	3.5	2.0
Settleable solids.....	(1)	
pH.....	Within the range 6.0 to 9.0.	

<sup>1</sup> No comparable English units.

§ 431.16 Pretreatment standards for new sources.

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

tions set forth in § 128.131 of this chapter, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new

sources specified in § 431.15; *Provided* That, if the publicly owned treatment works which receives the pollutants is committed in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment

standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant."

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