

Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL
PROTECTION AGENCYSUBCHAPTER N—EFFLUENT GUIDELINES AND
STANDARDS

[FRL 321-1]

PART 426—EFFLUENT LIMITATIONS AND
GUIDELINES FOR EXISTING SOURCES
AND STANDARDS OF PERFORMANCE
AND PRETREATMENT STANDARDS FOR
NEW SOURCES FOR THE GLASS CON-
TAINER MANUFACTURING POINT
SOURCE CATEGORY

On August 21, 1974, notice was published in the FEDERAL REGISTER (39 FR 30282), 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 glass container manufacturing, machine pressed and blown glass manufacturing, glass tubing, manufacturing, television picture tube envelope manufacturing, incandescent lamp envelope manufacturing, and hand pressed and blown glass manufacturing subcategories of the glass manufacturing category of point sources.

The purpose of this notice is to establish final effluent limitations and guidelines for existing sources and standards of performance and pretreatment standards for new sources in the glass manufacturing category of point sources by amending 40 CFR Ch. I, Subchapter N, Part 426 by adding thereto the glass container manufacturing subcategory (Subpart H), the machine pressed and blown glass manufacturing subcategory (Subpart I), the glass tubing (Danner) manufacturing subcategory (Subpart J), the television picture tube envelope manufacturing subcategory (Subpart K), the incandescent lamp envelope manufacturing subcategory (Subpart L), and the hand pressed and blown glass manufacturing subcategory (Subpart M). 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. A regulation 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 glass con-

tainer manufacturing, machine pressed and blown glass manufacturing, glass tubing manufacturing, television picture tube envelope manufacturing, incandescent lamp envelope manufacturing, and hand pressed and blown glass manufacturing subcategories. In addition, the regulation as proposed was supported by two other documents: (1) The document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the PRESSED AND BLOWN GLASS Segment of the Glass Manufacturing Point Source Category" (August, 1974) and (2) the document entitled "Economic Analysis of Proposed Effluent Limitations for Selected Pressed and Blown Glass Industry Sectors" (August, 1974). Both of these documents were made available to the public and circulated to interested persons shortly after 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 thereto follows.

(a) *Summary of comments.* The following responded to the request for comments which was made in the preamble to the proposed regulation: Glass Container Manufacturers Institute, Owens-Illinois, General Electric Company, Corning Glass Works, and United States Department of Commerce.

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

(1) The comment was made that individual plants in the various subcategories may have auxiliary operations such as corrugating, plating, and various forms of decorating, which could significantly affect waste water discharges.

Effluent limitations guidelines for the pressed and blown glass segment are not applicable to wastes derived from such auxiliary operations. Many of these auxiliary waste water streams are the subject of other studies and effluent limitations guidelines have been or will be promulgated with regard to these operations. The issuance of a discharge permit for an entire plant facility would involve a determination of what constitutes BPCTCA and BATEA with regard to auxiliary streams such as boiler blowdowns, non-contact cooling waters, electroplating waste waters, corrugating waste waters, and those instances where decorating requires waste water discharge.

(2) The comment was made that the standard method of oil analysis as defined in the proposed regulation will not distinguish between biodegradable, com-

patible pollutants (animal and vegetable oils) and nonbiodegradable, incompatible pollutants (mineral oils). Also, the standard method of hexane extraction is in disagreement with 38 FR 28759 which requires freon extraction as the method of oil analysis.

The existing information with regard to the treatability of animal and vegetable oils has been reviewed. It has been determined that animal and vegetable oils can be adequately removed in publicly owned treatment works, whereas mineral oil may not be readily removed and may pass through untreated. Therefore, with regard to pretreatment, it is appropriate that separate regulations be established for these categories of oils. The regulation has been modified to reflect this evaluation.

Also, the Agency has redefined oil for this regulation to reflect the latest technique or techniques of oil analysis described in the most recent addition of Standard Methods.

(3) One commenter stated that based on their experience with recirculation of cullet quench water, a blowdown of the equivalent of 50 gallons/ton is necessary for control of dissolved solids rather than the 18.5 gallons/ton used in the development of BATEA guidelines for the glass container manufacturing subcategory.

During the sampling program initiated by the Agency, the maximum level of dissolved solids in the above mentioned recirculation system was 277 mg/l. A similar recirculation system employed at another plant maintained levels of 1700 mg/l of dissolved solids. The calculation of guidelines is based upon this demonstrated level of 1700 mg/l, which is considered to be very conservative. Based on this 1700 mg/l, the commenter's system could be recirculated with a blowdown of approximately one-sixth the present level or 8.4 gallons/ton, or less than that used in the guidelines calculation. Therefore, the Agency feels that the 18.5 gallons/ton blowdown is a conservative and valid value.

(4) The comment was made that the reduction to 5 mg/l of oil and suspended solids which is stated to be achievable using the technique of diatomaceous earth filtration is not as yet demonstrated in the pressed and blown glass segment. Based on 10 days of sampling using a diatomaceous earth filter at full-scale operating conditions, values of 7.1 mg/l for suspended solids and 8.6 mg/l for oil were observed.

The data supplied by the commenter in actuality averaged 7.63, not 8.6 mg/l for oil. However, based upon data pertaining to the application of diatomaceous earth filtration to waste waters generated in the pressed and blown glass industry segment, it is apparent that effluent levels on the order of 5-10 mg/l of suspended solids and oil are attainable. The BATEA and new source performance standards have been modified to reflect the current experience of this industry segment with diatomaceous earth filtration.

(5) Based on data acquired at one of the commenter's plants, the commenter

feels that BATEA effluent limitations guidelines may not, in some instances, be met by treatment methods recommended for BATEA.

The Agency does not feel that the system currently employed at this facility constitutes BATEA. This plant employs a cullet quench recirculation system, but as discussed in a previous comment does not recycle to the extent possible. The plant also does not employ dissolved air flotation to treat the blowdown from the recirculation system, but relies only on the use of diatomaceous earth filtration. It is felt that with alterations, this plant could in fact achieve the promulgated BATEA effluent limitations guidelines.

(6) The comment was made that the costs presented in the Development Document with regard to the glass container manufacturing subcategory do not take into account such factors as age of facility, production halts, the costs of segregation of the cullet quench waste water stream, size of facility, and manpower for installation. One plant has experienced capital costs of \$616,048 and annual operating expenses of \$82,132 as opposed to the \$312,000 and \$66,900 presented for the model plant in the Development Document for BATEA.

The production capacity of the plant used by the commenter for illustrative purposes is approximately 1400 tons per day and is a very old plant. The model plant presents cost estimates in August, 1971-dollars for a facility with a capacity of 500 tons per day. Following the sizing and scaling procedures presented in the Development Document, the model plant would indicate a capital cost of \$679,000 for a 1400 tons per day facility. In addition, the Agency also utilized an alternate costing procedure for a new model plant of 1400 tons per day capacity. The result yielded capital costs of \$645,000 and annual operating costs of \$124,200. Both of these estimates approximate the costs suggested by the commenter; as a result, these estimates clearly substantiate both the methodology and the conclusions developed by the Agency on this issue. It is therefore, felt that the cost estimates presented in the Development Document properly reflect the age, size, manpower, and production considerations which the commenter felt to be lacking. It was also learned that the treatment system utilized by the commenter's illustrative plant was installed over the course of three years with little or no halt in production. Therefore, based on the commenter's experience, no major difficulties in loss of production are anticipated should this system be installed to attain BATEA effluent limitations guidelines by 1983.

(7) A commenter stated that while new source performance standards (NSPS) are based on BATEA, this technology is not currently demonstrated in the glass container manufacturing subcategory.

BATEA and NSPS are based on a dissolved air flotation system to treat the blowdown from a cullet quench recirculation system. An oil adsorptive diato-

maceous earth filtration polishing step is specified to further treat the effluent discharge stream. Cullet quench recirculation is employed by many plants in the glass container manufacturing subcategory and is therefore currently demonstrated. Dissolved air flotation and diatomaceous earth filtration techniques are demonstrated by industrial and water treatment applications and to a limited extent in the pressed and blown glass segment. Sufficient data exists on the operation of dissolved air flotation units and diatomaceous earth filters to predict that such a system can routinely achieve both the BATEA and NSPS effluent limitations guidelines.

(8) One commenter stated that the water usages established for the model plant in the machine pressed and blown glass subcategory are not in agreement with usages experienced by the commenter. Another commenter recommended that a separate subcategory be established with regard to tableware as opposed to pressed ware.

Based on the information at hand, the characterization of the machine pressed and blown glass subcategory is correct. However, considerable additional data has been received and more is now being compiled with regard to this subcategory. The Agency will reanalyze all data for this subcategory in light of this new information and postpone promulgation of the regulations for this subcategory.

(9) One commenter stated that continuous quenching is required in the manufacture of tubing suitable for the making of scientific glassware to ensure quality control; therefore, he concludes that a resubcategorization of the glass tubing manufacturing subcategory is necessary to take these process variations into account.

No corroboration can be obtained at this time with regard to the necessity of continuous quenching in the manufacture of tubing suitable for scientific glassware. A second large producer of this product has indicated the use of intermittent quenching. It has been indicated by the commenter that the processes employed the majority of the time at its tubing facility are the Vello and Updraw methods. It has also been learned that an alternate process, the Danner process, does not require continuous quenching and is employed at plants which quench intermittently. The glass tubing subcategory has been redefined as the glass tubing (Danner) manufacturing subcategory and further study is being accomplished with regard to this industry to determine if further subcategorization is necessary. Accordingly, plants not using the Danner process are not now affected by the regulation promulgated herein. If it is found that further subcategorization is warranted, a proposed amendment to this regulation will be published in the FEDERAL REGISTER.

It has also been determined that no shear spray oil is used in the manufacture of glass tubing. Oil which appeared in prior analyses is apparently lubricating oil leakage into the non-contact

cooling water stream. Therefore, oil has been eliminated as a parameter from the glass tubing process waste water limitations.

(10) One commenter suggested that while the Agency is recommending certain treatment technologies, alternative technologies are available which are capable of achieving effluent limitations guidelines.

The Agency is not requiring or recommending that any particular technologies be employed. Should a discharger determine that any treatment technology is the optimum for his operating process and capable of attaining the effluent limitations, it would not be in conflict with the Agency's intent for this alternative technology to be utilized.

(11) One commenter felt that the problem of disposal of lime precipitates was inadequately addressed in the Development Document.

The technology of lime precipitation for fluoride removal is currently practiced by all plants in the incandescent lamp envelope manufacturing and the television picture tube envelope manufacturing subcategories, and they are currently disposing of the resultant sludge. No serious problems have been indicated and no data has been provided to lead the Agency to suspect the occurrence of any serious difficulties with regard to sludge disposal.

(12) One commenter felt that the definition of "product frosted" is misleading as it implies that only that amount of glass which is etched is considered rather than that fraction associated with the "furnace pull" which is etched.

The Agency recognizes the need for further clarification of what is meant by "product frosted" and has redefined the term to clarify its definition in the regulation.

(13) One commenter felt that age is a factor with regard to the incandescent lamp envelope manufacturing subcategory in that older plants experience restrictions due to design and lay-out, structural strength, and usable space.

The data which form the basis of the effluent limitations guidelines were primarily derived from the commenter's oldest plant, because that is where the most reliable and available data was obtained. Therefore, the data, guidelines, and cost of treatment reflect that of an old plant, of an age characteristic of a major portion of this subcategory. Therefore, it is felt that age has been taken into consideration.

(14) The comment was made that the proposed BPCTCA limitations for fluoride removal for the incandescent lamp envelope manufacturing subcategory do not reflect the levels of treatment currently demonstrated by plants in this subcategory.

Further investigation and analyses have been accomplished with regard to this subcategory. It has been determined that the presence of the ammonium ion in the frosting waste water creates an apparent interference by inhibiting solids settling. It is expected that further research into the use of coagulant aids,

such as polyelectrolytes, would enable reductions of the present levels of fluoride and suspended solids discharged. It is recognized that this will require further investigation on the part of industry. BPCTCA effluent limitations guidelines are now based upon current operating levels.

(15) The comment was made that the attainment of the proposed BPCTCA limitations for ammonia in the incandescent lamp envelope manufacturing subcategory is not presently demonstrated in this subcategory. The steam stripping of ammonia presents serious problems with regard to potential air pollution, energy consumption, and scaling in the column.

The steam stripping of ammonia has been demonstrated in many other industry segments, but has not been demonstrated in this industry segment. The presence of calcium in the waste waters resulting from fluoride treatment could cause scaling problems during ammonia stripping if proper design and preventative measures are not taken into consideration. The application of steam stripping requires further development by plants in the incandescent lamp envelope subcategory to be able to apply the most effective method of ammonia removal. Since these methods require further development prior to implementation by this industry segment, the ammonia limitations are not required for 1977 (BPCTCA).

(16) The comment was made that activated alumina, although effective to the extent called for by the limitations, would reflect costs which are prohibitive and therefore is not justified as best available technology economically achievable.

The Agency is in agreement in light of further information received with regard to toxicity levels of fluoride. Research done at the Colorado School of Mines Research Institute indicates that fluoride in the presence of excess calcium is of much less environmental significance than fluoride in the absence of calcium. It is recognized that the discharge of fluoride in concentrations of tens of milligrams per liter may cause water quality problems in a few specific locations. However, these specific problems will be controlled by water quality regulations and should not constitute the basis for a national limitation. Promulgated BATEA limitations are based on sand filtration.

(17) The comment was made that while the model plant employed in the economic impact analysis as representative of the incandescent lamp envelope manufacturing subcategory had a dollar sales of \$30,000,000 annually, it is the experience of the commenter that his company's largest plant has sales slightly in excess of \$7,000,000. Therefore, a question was raised as to the validity of the economic impact analysis for this subcategory.

The Agency believes that the economic impact analysis is valid in spite of the fact that the model plant used in the analysis is larger than the commenter's plants. Since the annual costs of pollu-

tion control are small (approximately 1.8 percent of total annual sales) it is expected that firms within the industry should be able to pass on the costs of pollution control through price increases. Incandescent lamp envelopes are an intermediate step in the manufacture of incandescent lamps, and constitute a very small portion of the total cost of the final product. Hence, it is believed that even a higher relative cost of pollution control (as might occur in the case of small plants) could be easily passed on in higher prices.

(18) The comment was made with regard to the television picture tube envelope manufacturing subcategory, that control technologies are applied only to the abrasive and acid polishing waste waters, but that effluent limitations apply to the total discharge stream. The proposed limitations assume that cullet quench water contains no fluoride or lead. By material balance it has been determined that fluoride is present in concentrations on the order of one to two mg/l. By actual analyses, lead in concentrations on the order of 0.22 mg/l was indicated to occur.

There is no contact of fluoride with the cullet quench waste water stream. The indication of fluoride content in this stream could be due to many factors such as leakage, error in the sample analyses, the presence of significant fluoride concentration in the influent cullet quench water stream, or evaporative losses which would tend to concentrate fluoride levels at the plant outfall. However, there is insufficient data available at this time to establish the level of lead or fluoride existent in the cullet quench discharge stream. Other than by practicing good housekeeping procedures, the probable low levels of both pollutants in this stream would render treatment impractical. It has therefore been specified in the promulgated regulations that the fluoride and lead limitations apply only to the abrasive and acid polishing discharge streams.

(19) The comment was made that because of the anticipated economic impact with regard to the hand pressed and blown glass manufacturing subcategory, an allowance should be made for those plants discharging relatively small volumes of process waste water.

After careful review of the available data with respect to plants within the hand pressed and blown glass manufacturing subcategory, it has been determined that treatment requirements could seriously impact plants within the subcategory. Therefore, no BPCTCA limitations are imposed upon the hand pressed and blown glass manufacturing subcategory. It is felt that the additional time from 1977 until 1983 can be utilized in acquiring the capital necessary to invest in systems which will achieve the pollutant reductions specified by BATEA effluent limitations guidelines, as well as researching means of implementation less costly than these currently available. It is believed that the two factors mentioned above will help to minimize any potential economic impact.

(20) The comment was made that the references to concentrations in the preamble to the proposed regulation could be misinterpreted to mean that concentration limitations are being required for the glass container, glass tubing, television picture tube envelope, and incandescent lamp envelope manufacturing subcategories.

The references to concentration and flow which appeared in the preamble to the proposed regulation were included for illustrative purposes, to enable the reader to obtain an understanding of the relative volume and concentrations of pollutants which may exist at a typical plant. Effluent limitations guidelines appear in the regulation, not in the preamble to the regulation. For the aforementioned subcategories, limitations as are required by effluent limitations guidelines shall be stated in quantitative terms, i.e., unit of weight per unit of time (kg/day) for each pollutant limited.

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

(1) The machine pressed and blown glass manufacturing subcategory is the subject of further study and is not promulgated as a subpart to this regulation. Sections 426.90, 426.91, 426.92, 426.93, 426.94, 426.95, and 426.96 have been reserved and a proposed amendment to this regulation will be published in the FEDERAL REGISTER at a later date.

(2) The proposed glass tubing manufacturing subcategory has been redefined as the glass tubing (Danner) manufacturing subcategory with the appropriate description of applicability discussed in § 426.100.

(3) Oil has been omitted as a parameter with regard to the process waste waters resulting from the glass tubing (Danner) manufacturing subcategory.

(4) Sections 426.81, 426.111, and 426.121 have been modified to reflect a definition of oil based on recognized standard methods of analysis. Pretreatment regulations have been modified to reflect the differences between animal and vegetable and mineral oils.

(5) The bases for the determination of BATEA effluent limitations guidelines and new source performance standards earth filtration have been modified to reflect current operating levels experienced in this industry segment.

(6) The definition of "product frosted" has been redefined in § 426.121 to clarify its definition.

(7) BPCTCA effluent limitations guidelines for the incandescent lamp envelope manufacturing subcategory have been modified and are now based upon current operating levels experienced in the industry.

(8) BATEA effluent limitations guidelines with regard to fluoride removal have been modified as the result of a determination that activated alumina filtration is not cost effective. Promulgated BATEA limitations are based on sand filtration.

(9) Sections 426.112, 426.113, and 426.115 have been clarified to explain that fluoride and lead limitations apply only to the abrasive and acid polishing discharge streams.

(10) BPCTCA effluent limitations guidelines have been modified to the extent that no limitations are specified for those plants in the hand pressed and blown glass manufacturing subcategory.

(c) *Economic impact.* The resultant changes with respect to the regulation will have no significant effect on the conclusions of the economic analysis prepared for the proposed regulation, with the exception that the projected impact in the hand pressed and blown glass manufacturing subcategory has been minimized in that BPCTCA limitations are no longer specified for the hand pressed and blown glass manufacturing subcategory.

(d) *Cost-benefit analysis.* The detrimental effects of the constituents of waste waters now discharged by point sources within the pressed and blown glass segment of the glass manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the PRESSED AND BLOWN GLASS Manufacturing Segment of the Glass Manufacturing Point Source Category" (November, 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 Limitations for Selected Pressed and Blown Glass Industry Sectors" (August, 1974). 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 glass 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) 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 PRESSED AND BLOWN GLASS Segment of the Glass Manufacturing Point Source Category", will be published and will be available for purchase from the Government Printing Office, Washington, D.C. 20402 for a nominal fee.

Copies of the economic analysis document previously cited will be available from the National Technical Information Service, Springfield, Virginia 22151.

(f) *Final rulemaking.* In consideration of the foregoing, 40 CFR Ch. I, Subchapter N, Part 426, is hereby amended by adding additional Subparts H, I, J, K, L, and M to read as set forth below. This regulation is being promulgated pursuant to an order of the Federal District Court for the District of Columbia entered in Natural Resources Defense Council, Inc. v. Train (Cv. No. 1609-73). That order requires that effluent limitations requiring the application of best practicable control technology currently available for this industry be effective upon publication. Accordingly, good cause is found for the final regulation promulgated below establishing best practicable control technology currently available for each subpart to be effective on January 16, 1975.

The final regulation promulgated below establishing the best available technology economically achievable, the standards of performance for new sources and the new source pretreatment standards shall become effective on February 18, 1975.

Dated: January 7, 1975.

RUSSELL E. TRATT,
Administrator.

Subpart H—Glass Container Manufacturing Subcategory

Sec.

426.80 Applicability; description of the glass container manufacturing subcategory.

426.81 Specialized definitions.

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

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

426.84 [Reserved]

426.85 Standards of performance for new sources.

426.86 Pretreatment standards for new sources.

Subpart I—Machine Pressed and Blown Glass Manufacturing Subcategory

426.90-426.96 [Reserved]

Subpart J—Glass Tubing (Danner) Manufacturing Subcategory

426.100 Applicability; description of the glass tubing manufacturing subcategory.

426.101 Specialized definitions.

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

Sec.

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

426.104 [Reserved]

426.105 Standards of performance for new sources.

426.106 Pretreatment standards for new sources.

Subpart K—Television Picture Tube Envelope Manufacturing Subcategory

426.110 Applicability; description of the television picture tube envelope manufacturing subcategory.

426.111 Specialized definitions.

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

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

426.114 [Reserved]

426.115 Standards of performance for new sources.

426.116 Pretreatment standards for new sources.

Subpart L—Incandescent Lamp Envelope Manufacturing Subcategory

426.120 Applicability; description of the incandescent lamp envelope manufacturing subcategory.

426.121 Specialized definitions.

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

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

426.124 [Reserved]

426.125 Standards of performance for new sources.

426.126 Pretreatment standards for new sources.

Subpart M—Hand Pressed and Blown Glass Manufacturing Subcategory

426.130 Applicability; description of the hand pressed and blown glass manufacturing subcategory.

426.131 Specialized definitions.

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

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

426.134 [Reserved]

426.135 Standards of performance for new sources.

426.136 Pretreatment standards for new sources.

AUTHORITY: Secs. 301, 304 (b) and (c), 303 (b) and (c), 307 (c), Federal Water Pollution Control Act, as amended (the Act); (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c), 1317 (c)); 86 Stat. 816 et seq.; Pub. L. 92-500.

RULES AND REGULATIONS

Subpart H—Glass Container Manufacturing Subcategory

§ 426.80 Applicability; description of the glass container manufacturing subcategory.

The provisions of this subpart are applicable to discharges resulting from the process by which raw materials are melted in a furnace and mechanically processed into glass containers.

§ 426.81 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 "furnace pull" shall mean that amount of glass drawn from the glass furnace or furnaces.

(c) The term "oil" shall mean those components of a waste water amenable to measurement by the technique or techniques described in the most recent addition of "Standard Methods" for the analysis of grease in polluted waters, waste waters, and effluents, such as "Standard Methods," 13th Edition, 2nd Printing, page 407.

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

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. 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 one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil.....	60.0.....	30.0
TSS.....	140.0.....	70.0
pH.....	Within the range 6.0 to 9.0.	
(English units) lb/1000 lb of furnace pull		
Oil.....	0.06.....	0.03
TSS.....	0.14.....	0.07
pH.....	Within the range 6.0 to 9.0.	

§ 426.83 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 one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil.....	1.6.....	0.8
TSS.....	1.6.....	0.8
pH.....	Within the range 6.0 to 9.0.	
(English units) lb/1000 lb of furnace pull		
Oil.....	0.0016.....	0.0008
TSS.....	0.0016.....	0.0008
pH.....	Within the range 6.0 to 9.0.	

§ 426.84 [Reserved]

§ 426.85 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 dis-

charged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil.....	1.6.....	0.8
TSS.....	1.6.....	0.8
pH.....	Within the range 6.0 to 9.0.	
(English units) lb/1000 lb of furnace pull		
Oil.....	0.0016.....	0.0008
TSS.....	0.0016.....	0.0008
pH.....	Within the range 6.0 to 9.0.	

§ 426.86 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a new source within the glass container manufacturing subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter, for existing sources (and which would be a new point source subject to Section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132, and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new point source subject to the provisions of this subpart. Because of the recognition that animal and vegetable oils can be adequately removed in a publicly owned treatment works, whereas mineral oil may not be readily removed and may pass through untreated, two separate limitations are established.

Pollutant or Pollutant Property	Pretreatment Standards	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil (animal & vegetable).....	No limitation.....	
Oil (mineral).....	60.0.....	30.0
TSS.....	No limitation.....	
pH.....	No limitation.....	
(English units) lb/1000 lb of furnace pull		
Oil (animal & vegetable).....	No limitation.....	
Oil (mineral).....	0.06.....	0.03
TSS.....	No limitation.....	
pH.....	No limitation.....	

Subpart I—Machine Pressed and Blown Glass Manufacturing Subcategory

§ 426.90-426.96 [Reserved]

Subpart J—Glass Tubing (Danner) Manufacturing Subcategory

§ 426.100 Applicability; description of the glass tubing (Danner) manufacturing subcategory.

The provisions of this subpart are applicable to discharges resulting from the process by which raw materials are melted in a furnace and glass tubing mechanically drawn from the furnace horizontally by means of the Danner process, which requires the intermittent quenching of cullet.

§ 426.101 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 "furnace pull" shall mean that amount of glass drawn from the glass furnace or furnaces.

(c) The term "cullet" shall mean any excess glass generated in the manufacturing process.

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

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 effect the industry subcategorization 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 dif-

ferent 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. 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 one day	Average of daily values for thirty consecutive days shall not exceed
(Metric units) g/kg of furnace pull		
TSS	400.0	200.0
pH	Within the range 6.0 to 9.0	
(English units) lb/1000 lb of furnace pull		
TSS	0.46	0.23
pH	Within the range 6.0 to 9.0	

§ 426.103 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 one day	Average of daily values for thirty consecutive days shall not exceed
(Metric units) g/kg of furnace pull		
TSS	0.4	0.2
pH	Within the range 6.0 to 9.0	
(English units) lb/1000 lb of furnace pull		
TSS	0.0004	0.0002
pH	Within the range 6.0 to 9.0	

§ 426.104 [Reserved]

§ 426.105 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 one day	Average of daily values for thirty consecutive days shall not exceed
(Metric units) g/kg of furnace pull		
TSS	0.4	0.2
pH	Within the range 6.0 to 9.0	
(English units) lb/1000 lb of furnace pull		
TSS	0.0004	0.0002
pH	Within the range 6.0 to 9.0	

§ 426.106 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a new source within the glass tubing (Danner) manufacturing subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter, for existing sources (and which would be a new point source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132, and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standards
pH	No limitation.
TSS	Do

Subpart K—Television Picture Tube Envelope Manufacturing Subcategory

§ 426.110 Applicability; description of the television picture tube envelope manufacturing subcategory.

The provisions of this subpart are applicable to discharges resulting from the process by which raw materials are melted in a furnace and processed into television picture tube envelopes.

§ 426.111 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 "furnace pull" shall mean that amount of glass drawn from the glass furnace or furnaces.

(c) The term "oil" shall mean those components of a waste water amenable to measurement by the technique or techniques described in the most recent addition of "Standard Methods" for the

analysis of grease in polluted waters, waste waters, and effluents, such as "Standard Methods," 13th Edition, 2nd Printing, page 407.

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

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 sub-categorization 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. 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 (The fluoride and lead limitations are applicable to the abrasive polishing and acid polishing waste water streams while the TSS, oil, and pH limitations are applicable to the entire process waste water stream):

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil.....	260.0.....	130.0
TSS.....	300.0.....	150.0
Fluoride.....	120.0.....	70.0
Lead.....	0.9.....	0.45
pH.....	Within the range 6.0 to 9.0.....	
(English units) lb/1000 lb of furnace pull		
Oil.....	0.26.....	0.13
TSS.....	0.30.....	0.15
Fluoride.....	0.14.....	0.07
Lead.....	0.009.....	0.0045
pH.....	Within the range 6.0 to 9.0.....	

§ 426.113 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 (The fluoride and lead limitations are applicable to the abrasive polishing and acid polishing waste water streams while the TSS, oil, and pH limitations are applicable to the entire process waste water stream):

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil.....	260.0.....	130.0
TSS.....	260.0.....	130.0
Fluoride.....	120.0.....	60.0
Lead.....	0.9.....	0.45
pH.....	Within the range 6.0 to 9.0.....	
(English units) lb/1000 lb of furnace pull		
Oil.....	0.26.....	0.13
TSS.....	0.26.....	0.13
Fluoride.....	0.12.....	0.06
Lead.....	0.009.....	0.0045
pH.....	Within the range 6.0 to 9.0.....	

§ 426.114 [Reserved]

§ 426.115 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 (The fluoride and lead limitations are applicable to the abrasive polishing and acid polishing waste water streams while the TSS, oil, and pH limitations are applicable to the entire process waste water stream):

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil.....	260.0.....	130.0
TSS.....	260.0.....	130.0
Fluoride.....	120.0.....	60.0
Lead.....	0.9.....	0.45
pH.....	Within the range 6.0 to 9.0.....	
(English units) lb/1000 lb of furnace pull		
Oil.....	0.26.....	0.13
TSS.....	0.26.....	0.13
Fluoride.....	0.12.....	0.06
Lead.....	0.009.....	0.0045
pH.....	Within the range 6.0 to 9.0.....	

§ 426.116 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a new source within the television picture tube envelope manufacturing subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter, for existing sources (and which would be a new point source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132, and 128.133 of this chapter shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new point source subject to the provisions of this subpart. Because of the recognition that animal and vegetable oils can be adequately removed in a publicly owned treatment works, whereas mineral oil may not be readily removed and may pass through untreated, two separate limitations are established.

Pollutant or Pollutant Property	Pretreatment Standards	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil (animal & vegetable).....	No limitation.....	
Oil (mineral).....	260.0.....	130.0
TSS.....	No limitation.....	
Fluoride.....	120.0.....	60.0
Lead.....	No limitation.....	
pH.....	No limitation.....	
(English units) lb/1000 lb of furnace pull		
Oil (animal & vegetable).....	No limitation.....	
Oil.....	0.26.....	0.13
TSS.....	No limitation.....	
Fluoride.....	0.12.....	0.06
Lead.....	No limitation.....	
pH.....	No limitation.....	

Subpart L—Incandescent Lamp Envelope Manufacturing Subcategory

§ 426.120 Applicability; description of the incandescent lamp envelope manufacturing subcategory.

The provisions of this subpart are applicable to discharges resulting from the processes by which (a) raw materials are melted in a furnace and mechanically processed into incandescent lamp envelopes or (b) incandescent lamp envelopes are etched with hydrofluoric acid to produce frosted envelopes.

§ 426.121 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 "furnace pull" shall mean that amount of glass drawn from the glass furnace or furnaces.

(c) The term "oil" shall mean those components of a waste water amenable to measurement by the technique or techniques described in the most recent addition of "Standard Methods" for the analysis of grease in polluted waters, waste waters, and effluents, such as "Standard Methods," 13th Edition, 2nd Printing, page 407.

(d) The term "product frosted" shall mean that portion of the "furnace pull" associated with the fraction of finished incandescent lamp envelopes which is frosted; this quantity shall be calculated by multiplying "furnace pull" by the fraction of finished incandescent lamp envelopes which is frosted.

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

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. 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:

(a) Any manufacturing plant which produces incandescent lamp envelopes shall meet the following limitations with regard to the forming operations.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil.....	230.0.....	115.0
TSS.....	230.0.....	115.0
pH.....	Within the range 6.0 to 9.0.....	
(English units) lb/1000 lb of furnace pull		
Oil.....	0.23.....	0.115
TSS.....	0.23.....	0.115
pH.....	Within the range 6.0 to 9.0.....	

(b) Any manufacturing plant which frosts incandescent lamp envelopes shall meet the following limitations with regard to the finishing operations.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of product frosted		
Fluoride.....	230.0.....	115.0
Ammonia.....	No limitation.....	
TSS.....	460.0.....	230.0
pH.....	Within the range 6.0 to 9.0.....	
(English units) lb/1000 lb of product frosted		
Fluoride.....	0.23.....	0.115
Ammonia.....	No limitation.....	
TSS.....	0.46.....	0.23
pH.....	Within the range 6.0 to 9.0.....	

§ 426.123 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:

(a) Any manufacturing plant which produces incandescent lamp envelopes shall meet the following limitations with regard to the forming operation.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil.....	60.0.....	45.0
TSS.....	60.0.....	45.0
pH.....	Within the range 6.0 to 9.0.....	
(English units) lb/1000 lb of furnace pull		
Oil.....	0.09.....	0.045
TSS.....	0.09.....	0.045
pH.....	Within the range 6.0 to 9.0.....	

(b) Any manufacturing plant which frosts incandescent lamp envelopes shall meet the following limitations with regard to the finishing operations.

§ 426.126 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a new source within the incandescent lamp envelope manufacturing subcategory including those plants where (a) raw materials are melted in a furnace and mechanically processed into incandescent lamp envelopes or (b) incandescent lamp envelopes are etched with hydrofluoric acid to produce frosted envelopes, which is a user of a publicly owned treatment works, and a major contributing industry as defined in Part 128 of this chapter, for existing sources (and which would be a new point source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132, and 128.133 of this chapter shall not apply. The following pretreatment standards establish the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new point source subject to the provisions of this subpart, including those plants where (c) raw materials are melted in a furnace and mechanically processed into incandescent lamp envelopes or (d) incandescent lamp envelopes are etched with hydrofluoric acid to produce frosted envelopes. Because of the recognition that animal and vegetable oils can be adequately removed in a publicly owned treatment works, whereas mineral oil may not be readily removed and may pass through untreated, two separate limitations are established.

(a)

Pollutant or Pollutant Property	Pretreatment Standards	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil (animal & vegetable)	No limitation	
Oil (mineral)	230.0	115.0
TSS	No limitation	
pH	No limitation	
(English units) lb/1000 lb of furnace pull		
Oil (animal & vegetable)	No limitation	
Oil (mineral)	0.23	0.115
TSS	No limitation	
pH	No limitation	
(Metric units) g/kg of product frosted		
Fluoride	104.0	52.0
Ammonia	240.0	120.0
TSS	80.0	40.0
pH	Within the range 6.0 to 9.0	
(English units) lb/1000 lb of product frosted		
Fluoride	0.104	0.052
Ammonia	0.24	0.12
TSS	0.08	0.04
pH	Within the range 6.0 to 9.0	

Subpart M—Hand Pressed and Blown Glass Manufacturing Subcategory

§ 426.130 Applicability; description of the hand pressed and blown glass manufacturing subcategory.

The provisions of this subpart are applicable to discharges resulting from the process by which raw materials are melted in a furnace and processed by hand into pressed or blown glassware. This includes those plants which (a) produce leaded glass and employ hydrofluoric acid finishing techniques, (b) produce non-leaded glass and employ hydrofluoric acid finishing techniques, or (c) produce leaded or non-leaded glass and do not employ hydrofluoric acid finishing techniques.

§ 426.131 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.

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

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. The following limita-

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of product frosted		
Fluoride	104.0	52.0
Ammonia	240.0	120.0
TSS	80.0	40.0
pH	Within the range 6.0 to 9.0	
(English units) lb/1000 lb of product frosted		
Fluoride	0.104	0.052
Ammonia	0.24	0.12
TSS	0.08	0.04
pH	Within the range 6.0 to 9.0	

§ 426.124 [Reserved]

§ 426.125 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:

(a) Any manufacturing plant which produces incandescent lamp envelopes shall meet the following limitations with regard to the forming operations.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of furnace pull		
Oil	90.0	45.0
TSS	90.0	45.0
pH	Within the range 6.0 to 9.0	
(English units) lb/1000 lb of furnace pull		
Oil	0.09	0.045
TSS	0.09	0.045
pH	Within the range 6.0 to 9.0	

(b) Any manufacturing plant which frosts incandescent lamp envelopes shall meet the following limitations with regard to the finishing operations.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
(Metric units) g/kg of product frosted		
Fluoride	104.0	52.0
Ammonia	240.0	120.0
TSS	80.0	40.0
pH	Within the range 6.0 to 9.0	
(English units) lb/1000 lb of product frosted		
Fluoride	0.104	0.052
Ammonia	0.24	0.12
TSS	0.08	0.04
pH	Within the range 6.0 to 9.0	

tions 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:

(a) Any plant which melts raw materials, produces hand pressed or blown leaded glassware, employs hydrofluoric acid finishing techniques, and discharges greater than 50 gallons per day of process waste water, shall meet the following limitations.

Effluent characteristic	Effluent limitations
Lead	No limitation.
Fluoride	Do.
TSS	Do.
pH	Do.

(b) Any plant which melts raw materials, produces non-leaded hand pressed or blown glassware, discharges greater than 50 gallons per day of process waste water, and employs hydrofluoric acid finishing techniques shall meet the following limitations.

Effluent characteristic	Effluent limitations
Fluoride	No limitation.
TSS	Do.
pH	Do.

(c) Any plant which melts raw materials, produces leaded or non-leaded hand pressed or blown glassware, discharges greater than 50 gallons per day of process waste water, and does not employ hydrofluoric acid finishing techniques shall meet the following limitations.

Effluent characteristic	Effluent limitations
TSS	No limitation.
pH	Do.

§ 426.133 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:

(a) Any plant which melts raw materials, produces hand pressed or blown leaded glassware, discharges greater than 50 gallons per day of process waste water, and employs hydrofluoric acid finishing techniques shall meet the following limitations.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
	mg/l	
Lead	0.2	0.1
Fluoride	25.0	13.0
TSS	20.0	10.0
pH	Within the range 6.0 to 9.0.	

(b) Any plant which melts raw materials, produces non-leaded hand pressed or blown glassware, discharges greater than 50 gallons per day of process waste water, and employs hydrofluoric acid finishing techniques shall meet the following limitations.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
	mg/l	
Fluoride	25.0	13.0
TSS	20.0	10.0
pH	Within the range 6.0 to 9.0.	

(c) Any plant which melts raw materials, produces leaded or non-leaded hand pressed or blown glassware, discharges greater than 50 gallons per day of process waste water, and does not employ hydrofluoric acid finishing techniques shall meet the following limitations.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
	mg/l	
TSS	20.0	10.0
pH	Within the range 6.0 to 9.0.	

§ 426.134 [Reserved].

§ 426.135 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:

(a) Any plant which melts raw materials, produces hand pressed or blown leaded glassware, discharges greater than 50 gallons per day of process waste water, and employs hydrofluoric acid finishing techniques shall meet the following limitations.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
	mg/l	
Lead	0.2	0.1
Fluoride	25.0	13.0
TSS	20.0	10.0
pH	Within the range 6.0 to 9.0.	

(b) Any plant which melts raw materials, produces non-leaded hand pressed or blown glassware, discharges greater

than 50 gallons per day of process waste water, and employs hydrofluoric acid finishing techniques shall meet the following limitations.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
	mg/l	
Fluoride	25.0	13.0
TSS	20.0	10.0
pH	Within the range 6.0 to 9.0.	

(c) Any plant which melts raw materials, produces leaded or non-leaded hand pressed or blown glassware, discharges greater than 50 gallons per day of process waste water, and does not employ hydrofluoric acid finishing techniques shall meet the following limitations.

Effluent characteristic	Effluent limitations	
	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
	mg/l	
TSS	20.0	10.0
pH	Within the range 6.0 to 9.0.	

§ 426.136 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a new source within the hand pressed and blown manufacturing subcategory including any plant which melts raw materials and (a) produces hand pressed or blown leaded glassware and employs hydrofluoric acid finishing techniques, (b) produces non-leaded hand pressed or blown glassware and employs hydrofluoric acid finishing techniques, or (c) produces leaded or non-leaded hand pressed or blown glassware and does not employ hydrofluoric acid finishing techniques, which is a user of a publicly owned treatment works and a major contributing industry as defined in Part 128 of this chapter, for existing sources (and which would be a new point source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the same standard as set forth in Part 128 of this chapter, except that, for the purpose of this section, §§ 128.121, 128.122, 128.132, and 128.133 of this chapter shall not apply. The following pretreatment standards establish the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new point source subject to the provisions of this subpart, including any plant which melts raw materials and (1) produces hand pressed or blown leaded glassware and employs hydrofluoric acid finishing techniques, (2) produces non-leaded

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hand pressed or blown glassware and employs hydrofluoric acid finishing techniques, or (3) produces leaded or non-leaded hand pressed or blown glassware and does not employ hydrofluoric acid finishing techniques.

(a) Pretreatment Standards		
Pollutant or Pollutant Property	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
mg/l		
Fluoride	26.0	13.0
Lead	No limitation	
TSS	No limitation	
pH	No limitation	

(b) Pretreatment Standards		
Pollutant or Pollutant Property	Maximum for any one day	Average of daily values for thirty consecutive days shall not exceed—
mg/l		
Fluoride	26.0	13.0
Lead	No limitation	
TSS	No limitation	
pH	No limitation	

(c) Pretreatment Standards	
Pollutant or Pollutant Property	Pretreatment Standards
TSS	No limitation
pH	No limitation

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