

Title 40—Protection of the Environment  
 CHAPTER I—ENVIRONMENTAL  
 PROTECTION AGENCY  
 SUBCHAPTER N—EFFLUENT GUIDELINES AND  
 STANDARDS

PART 426—GLASS MANUFACTURING  
 POINT SOURCE CATEGORY

Effluent Limitations Guidelines

On October 17, 1973 notice was published in the FEDERAL REGISTER, (38 FR 28902) 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 sheet glass manufacturing, rolled glass manufacturing, plate glass manufacturing, float glass manufacturing, automotive glass tempering and automotive glass laminating subcategories of the glass manufacturing 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 glass manufacturing category of point sources, by amending 40 CFR Chapter I, Subchapter N, Part 426 to add new subparts B, C, D, E, F and G. 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 sheet glass manufacturing, rolled glass manufacturing, plate glass manufacturing, float glass manufacturing, automotive glass tempering and automotive glass laminating subcategories. 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 FLAT GLASS Segment of the Glass Manufacturing Point Source Category" (October 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, FLAT GLASS INDUSTRY" (August 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 was 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: PPG Industries, Inc.; U.S. Water Resources Council; County Sanitation Districts of Los Angeles County; Ford Motor Company; Libbey-Owens-Ford Company; Colorado Department of Natural Resources; and U.S. Department of Health, Education, and Welfare.

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) Comments were received questioning the applicability of diatomaceous earth filters for suspended solids and oil removal as best available technology. Claims were made that this treatment device is untested and unproven in the subcategories covered, and that the estimated effluent concentrations of less than 5 mg/l are overly optimistic.

EPA has found many applications of this filtration device in other industries and also in a few cases in the glass industry. Sufficient data exists on the operation of diatomaceous earth filters to show that such a device can routinely achieve less than 5 mg/l of suspended solids and oil. In the glass container industry a diatomaceous earth filter is being used at one plant to remove machine oil, and emulsified cutting oils similar to those used in the flat glass industry. Also, it has recently come to light that one plant producing windshields has installed a diatomaceous earth filter on its lamination wash water systems on a pilot basis. EPA, therefore, finds that the "best available" limitations on the automotive glass tempering and automotive glass laminating subcategories are reasonable and justified based on the proven technology.

(2) Comments have been received that the no discharge limitation for float glass cannot be accomplished for two reasons: (1) No additional water can be added to the batch make-up as suggested by EPA, and (2) a number of factors mitigate against the disposal of float wash water to cooling towers. EPA has not included limitations of noncontact cooling water, either for once-through cooling water, or for cooling tower blowdown from recycled systems. If float wash water is added to

cooling water systems, the pollutants will be eventually discharged to the environment untreated. The first objection was based on the fact that soda ash is in short supply and liquid caustic must be substituted. All the water needed for dust suppression is thus supplied by the liquid caustic. Moreover, the suggestion by EPA that dry caustic could be substituted is not practical because it would present severe handling and storage problems.

EPA has confirmed the accuracy of these statements. The recommended recycle of wash water to cooling towers would not be appropriate because effluent limitations have not yet been developed for noncontact cooling water. EPA has also determined that the use of dry caustic to allow recycle of waste water to the batch make-up does present the problems mentioned above. Therefore, a new limitation for the float glass subcategory representing the best available technology economically achievable has been established. These limitations can be attained by the use of diatomaceous earth filters as described in the Development Document.

(3) A question was raised in the comment period about the setting of a COD limitation on plate glass manufacturing. The Development Document stated that data on COD was insufficient to determine an accurate COD loading for a typical plant.

The statement above is only correct as it applies to data on the raw waste load. Industry-supplied data, verified by EPA's contractor, was sufficient to establish a COD effluent loading. However, further consideration of the COD limitation by EPA has determined that the removal of suspended solids is sufficient to control wastes from the plate process. The source of COD in plate waste water is the polishing operation and can be attributed to the organic fibers from the polishing pads. No other significant source is known. Since the treatment technology is designed to control suspended solids, these organic fibers should be removed to the same high level as inorganic suspended solids. The new regulations, therefore, do not contain a COD limitation, for the plate glass subcategory.

(4) Commenters were concerned that the limitations would be interpreted as absolute values without consideration of pollutants in incoming waters.

There is evidence to show that COD and BOD<sub>5</sub> values of intake waters are significant when compared to the allowable effluent loadings in the proposed effluent limitations for some parameters. Moreover, in the case of the float glass, automotive glass tempering, and automotive glass laminating subcategories, the COD and BOD<sub>5</sub> parameters can be attributed to the oil present as described in the Development Document.

EPA has decided that with the concentrations of organics normally present in intake waters, plants would find difficulty in meeting the absolute limitations for BOD<sub>5</sub> and COD. Since the organics are essentially oil, the BOD<sub>5</sub> and COD

limitations have been dropped from the proposed limitations for the flat glass industry.

(5) The comments above also apply to the phosphorus limitations in the float glass and automotive glass subcategories. Phosphorus limitations will be difficult to meet if the numbers are considered absolute values and not net over incoming waters.

EPA has decided that the phosphorus limitations for float glass should be retained. These limitations make allowance for phosphorus present in incoming waters and analytical error. During the course of the guidelines development EPA determined that the use of phosphate based detergents was not necessary in float glass washing. The present limitation, therefore, can be met if such detergents are not used.

In the automotive glass lamination subcategory, EPA recognizes that the low concentration of phosphate required by the proposed limitations would be difficult for a plant to achieve if the intake waters are not taken into account. Therefore, an additional allowance has been made in the best practicable and best available limitations to account for any background phosphate. This allowance is approximately 0.5 mg/l for a typical plant.

(6) Comments were received that claimed that an API separator on the rinse water in the laminating subcategory was insufficient to remove oil.

EPA found in the study of the industry that API separators can indeed reach the levels required by the "best practicable" limitations. Difficulties can arise where excess water is used in the rinse operations. However, with the recommended hot water pre-rinse which is totally recycled, water usage will be minimized and the required oil levels achieved in the effluent.

(7) Commentors pointed out that the term "oil" needs a more specific and common definition, and that a previous test procedure published in the FEDERAL REGISTER (38 FR 28758, October 16, 1973) used freon to extract oil from a sample.

To clarify this issue, this promulgated regulation refers to the above FEDERAL REGISTER document and the definition of oil contained therein.

(8) Other comments pointed out that the limitations would require a typical plant to reduce its oil to 5 mg/l in the effluent. It was pointed out that the present analytical method is only accurate to 10 mg/l.

EPA finds the comments to be valid. The limitations in this document have been raised where necessary to an effluent loading that would represent 10 mg/l for a typical plant flow.

(b) Revision of the proposed regulations prior to promulgation.

As a result of public comments, continuing review and evaluation of the proposed regulation by EPA, the following changes have been made in the regulation.

(1) Sections 426.21, 426.31, 426.41, 426.51, 426.61 and 426.71 entitled "Spe-

cialized Definitions," now include references to general definitions, abbreviations, and methods of analysis in 40 CFR Part 401 which reduce the need for some specialized definitions in this regulation.

(2) An important change was made in the "best available" limitations for the float glass subcategory. The proposed no discharge limitation has been changed to permit a discharge. The pollutant levels, however, were determined to be less than that allowed by the "best practicable" limitations, and are attainable by the application of the best available technology economically achievable, use of diatomaceous earth filter.

Originally, EPA was of the opinion that the relatively clean float wash water could be entirely recycled to the batch make-up for dust suppression and to the cooling towers as make-up water. Comments submitted to EPA have shown that in many cases this waste water can not be recycled for sound technical reasons. EPA also reconsidered the recommended recycle of wash water to cooling towers because effluent limitations have not yet been developed for non-contact cooling water and it would not be appropriate to dispose of float wash water in the cooling water system before such limitations are established.

(3) In the plate glass subcategory, the COD limitations have been eliminated but the limitations on TSS remain. EPA has determined that the technology for controlling TSS is more than adequate to control the waste water discharge from the plate process. The COD is contributed by the organic fibers in the polishing pads. These fibers are measured in the TSS analysis, and, therefore, little benefit is to be derived from the setting of a separate COD limitation. As mentioned previously, there is also some question about the lack of COD data in the raw waste from the plate process which further supports the decision to remove COD from the list of effluent limitations for the plate glass subcategory.

(4) The BOD5 and COD limitations in the float glass, automotive glass tempering and automotive glass laminating subcategories have been eliminated. This was done for two reasons: (1) The limitations do not give any credit for these pollutant parameters in incoming waters. These pollutants are frequently present in intake water concentrations equal to the proposed limitations and could preclude many plants from meeting the limitations. (2) The BOD5 and COD added by the process is almost entirely oil. The oil limitations in these regulations are sufficient to control this pollutant with proper monitoring.

(5) In the automotive glass laminating subcategory, the phosphorus limitations have been raised to allow for phosphate in intake waters. The low effluent concentrations required by the proposed limitations would be difficult to meet if applied on an absolute basis. The allowable effluent concentrations for a typical plant were thus raised from 5.6 to 6.1 mg/l for the "best practicable" limita-

tions and from 1.0 to 1.5 mg/l for the "best available" limitations.

(6) Valid questions were raised during the comment period about the limits of detection for oil. The proposed limitations were based on a concentration of 5 mg/l for a typical plant. Comments have showed that 10 mg/l of oil is the enforceable limit and the limitations in each of the subcategories containing oil as a parameter (float glass manufacturing, automotive glass tempering and automotive glass laminating) have been raised to reflect this consideration.

(7) 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 to the regulations will not affect the results of the economic analysis prepared for the proposed regulation.

(d) Cost-benefit analysis.

The detrimental effects of the constituents of waste water now discharged by point sources within the flat 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 FLAT GLASS Segment Manufacturing Point Source Category" (February, 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

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Analysis of Proposed Effluent Guidelines, FLAT GLASS 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 flat 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 FLAT GLASS Segment of the Glass Manufacturing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20401 for a nominal fee.

(f) Final rulemaking.

In consideration of the foregoing, 40 CFR Chapter I, Subchapter N, Part 426 is hereby amended by adding Subparts B through G to read as set forth below. This final regulation is promulgated as set forth below and shall be effective April 15, 1974.

Dated: January 31, 1974.

JOHN QUARLES,  
Acting Administrator.

Subpart B—Sheet Glass Manufacturing Subcategory

- Sec. 426.20 Applicability; description of the sheet glass manufacturing subcategory.
- 426.21 Specialized definitions.
- 426.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 426.24 Reserved.
- 426.25 Standards of performance for new sources.
- 426.26 Pretreatment standards for new sources.

Subpart C—Rolled Glass Manufacturing Subcategory

- 426.30 Applicability; description of the rolled glass manufacturing subcategory.
- 426.31 Specialized definitions.
- 426.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

- Sec. 426.34 Reserved.
- 426.35 Standards of performance for new sources.
- 426.36 Pretreatment standards for new sources.

Subpart D—Plate Glass Manufacturing Subcategory

- 426.40 Applicability; description of the plate glass manufacturing subcategory.
- 426.41 Specialized definitions.
- 426.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 426.44 Reserved.
- 426.45 Standards of performance for new sources.
- 426.46 Pretreatment standards for new sources.

Subpart E—Float Glass Manufacturing Subcategory

- 426.50 Applicability; description of the float glass manufacturing subcategory.
- 426.51 Specialized definitions.
- 426.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 426.54 Reserved.
- 426.55 Standards of performance for new sources.
- 426.56 Pretreatment standards for new sources.

Subpart F—Automotive Glass Tempering Subcategory

- 426.60 Applicability; description of the automotive glass tempering subcategory.
- 426.61 Specialized definitions.
- 426.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 426.64 Reserved.
- 426.65 Standards of performance for new sources.
- 426.66 Pretreatment standards for new sources.

Subpart G—Automotive Glass Laminating Subcategory

- 426.70 Applicability; description of the automotive glass laminating subcategory.
- 426.71 Specialized definitions.
- 426.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 426.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

- Sec. 426.74 Reserved.
- 426.75 Standards of performance for new sources.
- 426.76 Pretreatment standards for new sources.

Subpart H—Sheet Glass Manufacturing Subcategory

- § 426.20 Applicability; description of the sheet glass manufacturing subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the process in which several mineral ingredients (sand, soda ash, limestone, dolomite, cullen and other ingredients) are mixed, melted in a furnace, and drawn vertically from a melting tank to form sheet glass.

§ 426.21 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

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

§ 426.22 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 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 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 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: there shall be no discharge of process waste water pollutants to navigable waters.

§ 426.23 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 which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

§ 426.24 [Reserved]

§ 426.25 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

§ 426.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the sheet glass manufacturing 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 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.25; 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.

**Subpart C—Rolled Glass Manufacturing Subcategory**

§ 426.30 Applicability; description of the rolled glass manufacturing subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the process in which several

mineral ingredients (sand, soda ash, limestone, dolomite, cullet, and other ingredients) are mixed, melted in a furnace, and cooled by rollers to form rolled glass.

§ 426.31 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

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

§ 426.32 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 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 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 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: There shall be no discharge of process waste water pollutants to navigable waters.

§ 426.33 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 which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

§ 426.34 [Reserved]

§ 426.35 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

§ 426.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the rolled glass manufacturing 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 40 CFR 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.35; 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."

**Subpart D—Plate Glass Manufacturing Subcategory**

§ 426.40 Applicability; description of the plate glass manufacturing subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the process in which several mineral ingredients (sand, soda ash, limestone, dolomite, cullet and other ingredients) are melted in a furnace, pressed between rollers, and finally ground and polished to form plate glass.

§ 426.41 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

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

§ 426.42 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 subcategorization and effluent levels established. It is, however, possible that data which would effect 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 the 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 30 consecutive days shall not exceed |
| Metric units (kg/kg of product)   |                              |  |
| TSS.....                          | 2.76                         | 1.33   |
| pH.....                           | Within the range 6.0 to 9.0. |  |
| English units (lb/ton of product) |                              |  |
| TSS.....                          | 5.52                         | 2.76   |
| pH.....                           | Within the range 6.0 to 9.0. |  |

§ 426.43 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 30 consecutive days shall not exceed |
| Metric units (kg/kg of product)   |                              |  |
| TSS.....                          | 0.045                        | 0.045  |
| pH.....                           | Within the range 6.0 to 9.0. |  |
| English units (lb/ton of product) |                              |  |
| TSS.....                          | 0.090                        | 0.090  |
| pH.....                           | Within the range 6.0 to 9.0. |  |

§ 426.44 [Reserved]

§ 426.45 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

§ 426.46 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the plate glass manufacturing 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 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.45; 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.

**Subpart E—Float Glass Manufacturing Subcategory**

§ 426.50 Applicability; description of the float glass manufacturing subcategory.

The provisions of this subpart are applicable to discharges of pollutants re-

sulting from the process in which several mineral ingredients (sand, soda ash, limestone, dolomite, cullet, and other ingredients) are mixed, melted in a furnace, and floated on a molten tin bath to produce float glass.

§ 426.51 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

§ 426.52 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 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 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 day         | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/kg of product)    |                             |  |
| TSS                               | 2.00                        | 2.00   |
| Oil                               | 1.40                        | 1.40   |
| Phosphorus                        | .05                         | .05  |
| pH                                | Within the range 6.0 to 9.0 |  |
| English units (lb/ton of product) |                             |  |
| TSS                               | 0.0040                      | 0.0040   |
| Oil                               | .0028                       | .0028  |
| Phosphorus                        | .0001                       | .0001  |
| pH                                | Within the range 6.0 to 9.0 |  |

**§ 426.53 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 30 consecutive days shall not exceed |
| Metric units (g/kg of product)    |                             |  |
| TSS                               | 0.70                        | 0.70   |
| Oil                               | 1.40                        | 1.40   |
| Phosphorus                        | .05                         | .05  |
| pH                                | Within the range 6.0 to 9.0 |  |
| English units (lb/ton of product) |                             |  |
| TSS                               | 0.0014                      | 0.0014   |
| Oil                               | .0028                       | .0028  |
| Phosphorus                        | .0001                       | .0001  |
| pH                                | Within the range 6.0 to 9.0 |  |

**§ 426.54 [Reserved]**

**§ 426.55 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 30 consecutive days shall not exceed |
| Metric units (g/kg of product)    |                             |  |
| TSS                               | 0.70                        | 0.70   |
| Oil                               | 1.40                        | 1.40   |
| Phosphorus                        | .05                         | .05  |
| pH                                | Within the range 6.0 to 9.0 |  |
| English units (lb/ton of product) |                             |  |
| TSS                               | 0.0014                      | 0.0014   |
| Oil                               | .0028                       | .0028  |
| Phosphorus                        | .0001                       | .0001  |
| pH                                | Within the range 6.0 to 9.0 |  |

**§ 426.56 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the float glass manufacturing 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 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.55 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."

**Subpart F—Automotive Glass Tempering Subcategory**

**§ 426.60 Applicability; description of the automotive glass tempering subcategory.**

The provisions of this subpart are applicable to discharges of pollutants resulting from the processes in which glass is cut and then passed through a series of processes that grind and polish the edges, bend the glass, and then temper the glass to produce side and back windows for automobiles.

**§ 426.61 Specialized definitions.**

For the purpose of this subpart: (a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) The term "tempering" shall mean the process whereby glass is heated near the melting point and then rapidly cooled to increase its mechanical and thermal endurance.

**§ 426.62 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 limitation 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 one day     | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/sq m of product)          |                             |  |
| TSS                                       | 1.05                        | 1.22   |
| Oil                                       | .64                         | .64  |
| pH  | Within the range 6.0 to 9.0 |  |
| English units (lb/1,000 sq ft of product) |                             |  |
| TSS                                       | 0.45                        | 0.25   |
| Oil                                       | .13                         | .13  |
| pH  | Within the range 6.0 to 9.0 |  |

**§ 426.63 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 30 consecutive days shall not exceed |
| Metric units (g/sq m of product)          |                             |  |
| TSS                                       | 0.24                        | 0.24   |
| Oil                                       | .43                         | .43  |
| pH  | Within the range 6.0 to 9.0 |  |
| English units (lb/1,000 sq ft of product) |                             |  |
| TSS                                       | 0.05                        | 0.05   |
| Oil                                       | .10                         | .10  |
| pH  | Within the range 6.0 to 9.0 |  |

## § 426.64 [Reserved]

## § 426.65 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 30 consecutive days shall not exceed |
| Metric units (g/sq m of product)          |                              |  |
| TSS.....                                  | 0.24                         | 0.24   |
| Oil.....                                  | .49                          | .49  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 sq ft of product) |                              |  |
| TSS.....                                  | 0.05                         | 0.05   |
| Oil.....                                  | .10                          | .10  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |

## § 426.66 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the automotive glass tempering 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 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

"In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.65; 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."

## Subpart G—Automotive Glass Laminating Subcategory

## § 426.70 Applicability; description of the automotive glass laminating subcategory.

The provisions of this subpart are applicable to discharges of pollutants resulting from the processes which laminate a plastic sheet between two layers of glass, and which prepare the glass for lamination such as cutting, bending and washing, to produce automobile windshields.

## § 426.71 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

## § 426.72 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 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 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 one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/sq m of product)          |                              |  |
| TSS.....                                  | 4.40                         | 4.40   |
| Oil.....                                  | 1.76                         | 1.76   |
| Phosphorus.....                           | 1.07                         | 1.07   |
| pH.....                                   | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 sq ft of product) |                              |  |
| TSS.....                                  | 0.90                         | 0.90   |
| Oil.....                                  | .36                          | .36  |
| Phosphorus.....                           | .22                          | .22  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |

## § 426.73 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 30 consecutive days shall not exceed |
| Metric units (g/sq m of products)         |                              |  |
| TSS.....                                  | 0.88                         | 0.88   |
| Oil.....                                  | 1.76                         | 1.76   |
| Phosphorus.....                           | .30                          | .30  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 sq ft of product) |                              |  |
| TSS.....                                  | 0.18                         | 0.18   |
| Oil.....                                  | .36                          | .36  |
| Phosphorus.....                           | .06                          | .06  |
| pH.....                                   | Within the range 6.0 to 9.0. |  |

## § 426.74 [Reserved]

## § 426.75 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 point source subject to the provisions of this subpart:

| Effluent characteristic                | Effluent limitations         |  |
|--|------------------------------|--|
|  | Maximum for any one day      | Average of daily values for 30 consecutive days shall not exceed |
| Metric units (g/sq m of product)       |                              |  |
| TSS.....                               | 0.88                         | 0.88   |
| Oil.....                               | 1.76                         | 1.76   |
| Phosphorus.....                        | .30                          | .30  |
| pH.....                                | Within the range 6.0 to 9.0. |  |
| English units (lb/1,000 lb of product) |                              |  |
| TSS.....                               | 0.18                         | 0.18   |
| Oil.....                               | .36                          | .36  |
| Phosphorus.....                        | .06                          | .06  |
| pH.....                                | Within the range 6.0 to 9.0. |  |

## § 426.76 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the automotive glass laminating 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 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard

for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 426.75; 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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