

freedom distribution (X<sup>2</sup>/df) and calculated as follows:

$$MDL_{LCL} = 0.69 \text{ MDL}$$

$MDL_{UCL} = 1.92 \text{ MDL}$  where  $MDL_{LCL}$  and  $MDL_{UCL}$  are the lower and upper 95 percent confidence limits respectively based on seven aliquots.

7. Optional iterative procedure to verify the reasonableness of the estimated MDL and calculated MDL of subsequent MDL determinations.

(a) If this is the initial attempt to compute MDL based on the estimated MDL in Step 1, take the MDL as calculated in Step 6, spike in the matrix at the calculated MDL and proceed through the procedure starting with Step 4.

(b) If the current MDL determination is an iteration of the MDL procedure for which the spiking level does not permit qualitative identification, report the MDL as that concentration between the current spike level and the previous spike level which allows qualitative identification.

(c) If the current MDL determination is an iteration of the MDL procedure and the spiking level allows qualitative identification, use  $S^2$  from the current MDL calculation and  $S^2$  from the previous MDL calculation to compute the F ratio.

$$\text{if } \frac{S_A^2}{S_B^2} < 3.05$$

then compute the pooled standard deviation by the following equation:

$$S_{\text{pooled}} = \left[ \frac{6S_A^2 + 6S_B^2}{12} \right]^{0.5}$$

$$\text{if } \frac{S_A^2}{S_B^2} > 3.05,$$

respike at the last calculated MDL and process the samples through the procedure starting with Step 4.

(d) Use the  $S_{\text{pooled}}$  as calculated in 7b to compute the final MDL according to the following equation:

$$MDL = 2.681 (S_{\text{pooled}})$$

where 2.681 is equal to  $t(12, 1 - \alpha = .99)$

(e) The 95 percent confidence limits for MDL derived in 7c are computed according to the following equations derived from percentiles of the chi squared over degrees of freedom distribution.

$$MDL_{LCL} = 0.72 \text{ MDL}$$

$$MDL_{UCL} = 1.65 \text{ MDL}$$

where LCL and UCL are the lower and upper 95 percent confidence limits respectively based on 14 aliquots.

*Reporting*

The analytical method used must be specifically identified by number or title and the MDL for each analyte expressed in the appropriate method reporting units. If the analytical method permits options which affect the method detection limit, these conditions must be specified with the MDL value. The sample matrix used to determine the MDL must also be identified with the MDL value. Report the mean analyte level with the MDL. If a laboratory standard or a sample that contained a known amount analyte was used for this determination, report the mean recovery, and indicate if the MDL determination was iterated.

If the level of the analyte in the sample matrix exceeds 10 times the MDL of the analyte in reagent water, do not report a value for the MDL.

REFERENCE

Glaser, J.A., Foerst, D.L., McKee, G.D., Quave, S.A., and Budde, W.L., "Trace Analysis for Wastewaters," Environmental Science and Technology, 15, 1426 (1981).

TABLE OF STUDENTS' T VALUES AT THE 99 PERCENT CONFIDENCE LEVEL

Number of replicates	Degrees of freedom (n-1)	$t(n-1, 1-\alpha=99)$
7	6	3.143
8	7	2.998
9	8	2.896
10	9	2.821
11	10	2.764
16	15	2.602
21	20	2.528
26	25	2.485
31	30	2.457
61	60	2.390
		2.326

[53 FR 9186, Mar. 21, 1988]

**PART 426—GLASS MANUFACTURING POINT SOURCE CATEGORY**

**Subpart A—Insulation Fiberglass Subcategory**

Sec.

426.10 Applicability; description of the insulation fiberglass subcategory.

426.11 Specialized definitions.

426.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best

practicable control technology currently available.

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

426.14 [Reserved]

426.15 Standards of performance for new sources.

426.16 Pretreatment standards for new sources.

426.17 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).

#### **Subpart B—Sheet Glass Manufacturing Subcategory**

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 Pretreatment standards for existing sources.

426.25 Standards of performance for new sources.

426.26 Pretreatment standards for new sources.

426.27 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

#### **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.

426.34 Pretreatment standards for existing sources.

426.35 Standards of performance for new sources.

426.36 Pretreatment standards for new sources.

426.37 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

#### **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 [Reserved]

426.44 Pretreatment standards for existing sources.

426.45 Standards of performance for new sources.

426.46 Pretreatment standards for new sources.

426.47 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).

#### **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.

426.57 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

#### **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

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attainable by the application of the best practicable control technology currently available.

426.63 [Reserved]

426.64 Pretreatment standards for existing sources.

426.65 Standards of performance for new sources.

426.66 Pretreatment standards for new sources.

426.67 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

**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.

426.74 [Reserved]

426.75 Standards of performance for new sources.

426.76 Pretreatment standards for new sources.

426.77 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

**Subpart H—Glass Container Manufacturing Subcategory**

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.

426.83–426.84 [Reserved]

426.85 Standards of performance for new sources.

426.86 Pretreatment standards for new sources.

426.87 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

**Subpart I—Machine Pressed and Blown**

**40 CFR Ch. I (7–1–04 Edition)**

**Glass Manufacturing Subcategory [Reserved]**

**Subpart J—Glass Tubing (Danner) Manufacturing Subcategory**

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

426.103–426.104 [Reserved]

426.105 Standards for performance for new sources.

426.106 Pretreatment standards for new sources.

426.107 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

**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.

426.117 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

**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.

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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.

426.127 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

### 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.

426.137 [Reserved]

AUTHORITY: Secs. 301, 304 (b) and (c), 306 (b) and (c), 307(c), and 316(b) of the Federal Water Pollution Control Act, as amended; 33 U.S.C. 1251, 1311, 1314, 1316 (b) and (c), 1317(b); 86 Stat. 816 *et seq.*, Pub. L. 92-500; 91 Stat. 1567, Pub. L. 95-217.

SOURCE: 39 FR 2565, Jan. 22, 1974, unless otherwise noted.

### Subpart A—Insulation Fiberglass Subcategory

#### § 426.10 Applicability; description of the insulation fiberglass subcategory.

The provisions of this subpart are applicable to discharges resulting from

the production of insulation fiberglass in which molten glass is either directly or indirectly made, continuously fiberized and chemically bonded into a wool-like material.

#### § 426.11 Specialized definitions.

For the purpose of this subpart:

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

(b) The term “cullet water” shall mean that water which is exclusively and directly applied to molten glass in order to solidify the glass.

(c) The term “advanced air emission control devices” shall mean air pollution control equipment, such as electrostatic precipitators and high energy scrubbers, that are used to treat an air discharge which has been treated initially by equipment including knock-out chambers and low energy scrubbers.

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

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:

(a) There shall be no discharge of process waste water pollutants to navigable waters, except as permitted in paragraph (b) of this section.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged in process waste water from advanced air emission control devices, when such water cannot be consumed in the process.