$$UCL = \overline{x} + t_{.95} \left(\frac{s}{\sqrt{n}} \right)$$

And \overline{x} is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.95}$ is the t statistic for a 95% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).

- (b) Certification reports. (1) The requirements of §429.12 are applicable to showerheads; and
- (2) Pursuant to §429.12(b)(13), a certification report shall include the following public product-specific information: The maximum water use in gallons per minute (gpm) and the maximum flow water pressure in pounds per square inch (psi).
- (3) Pursuant to §429.12(b)(13), a certification report shall include the following additional product-specific information: A declaration that the showerhead meets the requirements of ASME/ANSI A112.18.1M-1996, 7.4.4(a).

[76 FR 12451, Mar. 7, 2011; 76 FR 24771, May 2, 2011]

§ 429.30 Water closets.

- (a) Sampling plan for selection of units for testing. (1) The requirements of §429.11 are applicable to water closets; and
- (2) For each basic model of water closet, a sample of sufficient size shall be randomly selected and tested to ensure that any represented value of water consumption of a basic model for which consumers favor lower values shall be greater than or equal to the higher of:
 - (i) The mean of the sample, where:

$$\overline{\chi} = \frac{1}{n} \sum_{i=1}^{n} \chi_{i}$$

and, \overline{x} is the sample mean; n is the number of samples; and x_i is the i^{th} sample;

(ii) The upper 90 percent confidence limit (UCL) of the true mean divided by 1.1, where:

$$UCL = \overline{x} + t_{.90} \left(\frac{s}{\sqrt{n}} \right)$$

And \overline{x} is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.90}$ is the t statistic for a 90% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).

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- (b) Certification reports. (1) The requirements of §429.12 are applicable to water closets; and
- (2) Pursuant to §429.12(b)(13), a certification report shall include the following public product-specific information: The maximum water use in gallons per flush (gpf).

[76 FR 12451, Mar. 7, 2011; 76 FR 24771, May 2, 2011]

§ 429.31 Urinals.

- (a) Sampling plan for selection of units for testing. (1) The requirements of § 429.11 are applicable to urinals; and
- (2) For each basic model of urinal, a sample of sufficient size shall be randomly selected and tested to ensure that any represented value of water consumption of a basic model for which consumers favor lower values shall be greater than or equal to the higher of:
 - (i) The mean of the sample, where:

$$\overline{x} = \frac{1}{n} \sum_{i=1}^{n} x_i$$

and, \overline{x} is the sample mean; n is the number of samples; and x_i is the ith sample; or.

(ii) The upper 90 percent confidence limit (UCL) of the true mean divided by 1.1, where:

$$UCL = \overline{x} + t_{.90} \left(\frac{s}{\sqrt{n}} \right)$$

And \overline{x} is the sample mean; s is the sample standard deviation; n is the number of samples; and $t_{0.90}$ is the t statistic for a 90% one-tailed confidence interval with n-1 degrees of freedom (from Appendix A).

- (b) Certification reports. (1) The requirements of §429.12 are applicable to urinals; and
- (2) Pursuant to §429.12(b)(13), a certification report shall include the following public product-specific information: The maximum water use in gallons per flush and for trough-type urinals, the maximum flow rate in gallons per minute (gpm) and the length of the trough in inches (in).

[76 FR 12451, Mar. 7, 2011; 76 FR 24771, May 2, 2011]

§ 429.32 Ceiling fans.

- (a) Sampling plan for selection of units for testing. The requirements of §429.11 are applicable to ceiling fans.
- (b) Certification reports. (1) The requirements of § 429.12 are applicable to ceiling fans; and

(2) Pursuant to §429.12(b)(13), a certification report shall include the following public product-specific information: The number of speeds within the ceiling fan controls and a declaration that the manufacturer has incorporated the applicable design requirements.

§429.33 Ceiling fan light kits.

- (a) Sampling plan for selection of units for testing. (1) The requirements of §429.11 are applicable to ceiling fan light kits; and
- (2) For each basic model of ceiling fan light kit with sockets for medium screw base lamps or pin-based fluorescent lamps selected for testing, a sample of sufficient size shall be randomly selected and tested to ensure that—