APPENDIX A TO SUBPART F OF PART 430—COMPLIANCE STATEMENT AND CERTIFICATION REPORT

COMPLIANCE STATEMENT

Product: _____
Manufacturer's or Private Labeler's Name and Address:

_____

_____

_____

This compliance statement and all certification reports submitted are in accordance with 10 CFR Part 430 (Energy or Water Conservation Program for Consumer Products) and the Energy Policy and Conservation Act, as amended. The compliance statement is signed by a responsible official of the above named company. The basic model(s) listed in certification reports comply with the applicable energy conservation standard or water (in the case of faucets, showerheads, water closets, and urinals) conservation standard. All testing on which the certification reports are based was conducted in conformance with applicable test requirements prescribed in 10 CFR part 430 subpart B. All information reported in the certification report(s) is true, accurate, and complete. The company is aware of the penalties associated with violations of the Act, the regulations thereunder, and is also aware of the provisions contained in 18 U.S.C. 1001, which prohibits knowingly making false statements to the Federal Government.

Name of Company Official: _____
Signature: _____
Title: _____
Firm or Organization: _____
Address: _____
Telephone Number: _____
Facsimile Number: _____
Date: _____

Third Party Representation (if applicable)

For certification reports prepared and submitted by a third party organization under the provisions of §430.62 of 10 CFR part 430, the company official who authorized said third party representation is:

Name: _____
Title: _____
Address: _____
Telephone Number: _____
Facsimile Number: _____

The third party organization submitting the certification report on behalf of the company is:

Third Party Organization: _____
Address: _____
Telephone Number: _____
Facsimile Number: _____

CERTIFICATION REPORT

Date: _____
Product Type: _____
Product Class: _____
Manufacturer: _____
Private Labeler (if applicable): _____
Name: _____
Title: _____
Address: _____
Telephone Number: _____
Facsimile Number: _____

For Existing, New, or Modified Models[1]:
For Discontinued Models[2]:

[63 FR 13321, Mar. 18, 1998]

APPENDIX B TO SUBPART F OF PART 430—SAMPLING PLAN FOR ENFORCEMENT TESTING

Double Sampling

Step 1. The first sample size (N_1) must be four or more units.

Step 2. Compute the mean ($\bar{x}_1$) of the measured energy performance or water performance (in the case of faucets, showerheads, water closets, and urinals) of the N_1 units in the first sample as follows:

$$\bar{x}_1 = \frac{1}{n_1}\left(\sum_{i=1}^{n_1} x_i\right) \qquad (1)$$

where ($\bar{x}_1$) is the measured energy efficiency, energy or water (in the case of faucets, showerheads, water closets, and urinals) consumption of unit I.

Step 3. Compute the standard deviation (s_1) of the measured energy or water performance of the (N_1) units in the first sample as follows:

$$s_1 = \sqrt{\frac{\sum_{i=1}^{n_1}\left(x_i - \bar{x}_1\right)^2}{n_1 - 1}} \qquad (2)$$

Step 4. Compute the standard error ($S_{\bar{x}1}$) of the measured energy or water performance of the N_1 units in the first sample as follows:

$$s_{\bar{x}_1} = \frac{s_1}{\sqrt{n_1}} \qquad (3)$$

Step 5. Compute the upper control limit (UCL_1) and lower control limit (LCL_1) for the mean of the first sample using the applicable

[1] Provide specific product information including, for each basic model, the manufacturer's model numbers and the information required in §430.62(a)(4)(i) through (a)(4)(xvii)).

[2] Provide manufacturer's model number.

DOE energy or water performance standard (EPS) as the desired mean and a probability level of 95 percent (two-tailed test) as follows:

$$LCL_1 = EPS - ts_{\bar{x}_1} \qquad (4)$$

$$UCL_1 = EPS + ts_{\bar{x}_1} \qquad (5)$$

where t is a statistic based on a 95 percent two-tailed probability level and a sample size of N_1.

Step 6(a). For an Energy Efficiency Standard, compare the mean of the first sample ($\bar{x}_1$) with the upper and lower control limits (UCL_1 and LCL_1) to determine one of the following:

(1) If the mean of the first sample is below the lower control limit, then the basic model is in noncompliance and testing is at an end. (Do not go on to any of the steps below.)

(2) If the mean of the first sample is equal to or greater than the upper control limit, then the basic model is in compliance and testing is at an end. (Do not go on to any of the steps below.)

(3) If the sample mean is equal to or greater than the lower control limit but less than the upper control limit, then no determination of compliance or noncompliance can be made and a second sample size is determined by Step 7(a).

Step 6(b). For an Energy or Water Consumption Standard, compare the mean of the first sample ($\bar{x}_1$) with the upper and lower control limits (UCL_1 and LCL_1) to determine one of the following:

(1) If the mean of the first sample is above the upper control limit, then the basic model is in noncompliance and testing is at an end. (Do not go on to any of the steps below.)

(2) If the mean of the first sample is equal to or less than the lower control limit, then the basic model is in compliance and testing is at an end. (Do not go on to any of the steps below.)

(3) If the sample mean is equal to or less than the upper control limit but greater than the lower control limit, then no determination of compliance or noncompliance can be made and a second sample size is determined by Step 7(b).

Step 7(a). For an Energy Efficiency Standard, determine the second sample size (N_2) as follows:

$$n_2 = \left(\frac{ts_1}{0.05\ EPS}\right)^2 - n_1 \qquad (6a)$$

where s_1 and t have the values used in Steps 4 and 5, respectively. The term ''0.05 EPS'' is the difference between the applicable energy efficiency standard and 95 percent of the standard, where 95 percent of the standard is taken as the lower control limit. This procedure yields a sufficient combined sample size (N_1+N_2) to give an estimated 97.5 percent probability of obtaining a determination of compliance when the true mean efficiency is equal to the applicable standard. Given the solution value of N_2, determine one of the following:

(1) If the value of N_2 is less than or equal to zero and if the mean energy efficiency of the first sample ($\bar{x}_1$) is either equal to or greater than the lower control limit (LCL_1) or equal to or greater than 95 percent of the applicable energy efficiency standard (EES), whichever is greater, i.e., if $N_2 \leq 0$ and $\bar{x}_1 \geq \max$ (LCL_1, 0.95 EES), the basic model is in compliance and testing is at an end.

(2) If the value of N_2 is less than or equal to zero and the mean energy efficiency of the first sample ($\bar{x}_1$) is less than the lower control limit (LCL_1) or less than 95 percent of the applicable energy efficiency standard (EES), whichever is greater, i.e., if $N_2 \leq 0$ and $\bar{x}_1 \geq \max$ (LCL_1, 0.95 EES), the basic model is in noncompliance and testing is at an end.

(3) If the value of N_2 is greater than zero, then value of the second sample size is determined to be the smallest integer equal to or greater than the solution value of N_2 for equation (6a). If the value of N_2 so calculated is greater than $20-N_1$, set N_2 equal to $20-N_1$.

Step 7(b). For an Energy or Water Consumption Standard, determine the second sample size (N_2) as follows:

$$n_2 = \left(\frac{ts_1}{0.05\ EPS}\right)^2 - n_1 \qquad (6b)$$

where s_1 and t have the values used in Steps 4 and 5, respectively. The term ''0.05 EPS'' is the difference between the applicable energy or water consumption standard and 105 percent of the standard, where 105 percent of the standard is taken as the upper control limit. This procedure yields a sufficient combined sample size (N_1+N_2) to give an estimated 97.5 percent probability of obtaining a determination of compliance when the true mean consumption is equal to the applicable standard. Given the solution value of N_2, determine one of the following:

(1) If the value of N_2 is less than or equal to zero and if the mean energy or water consumption of the first sample ($\bar{x}_1$) is either equal to or less than the upper control limit (UCL_1) or equal to or less than 105 percent of the applicable energy or water performance standard (EPS), whichever is less, i.e., if $N_2 \leq 0$ and $\bar{x}_1 \leq \min$ (UCL_1, 1.05 EPS), the basic model is in compliance and testing is at an end.

(2) If the value of N_2 is less than or equal to zero and the mean energy or water consumption of the first sample ($\bar{x}_1$) is greater than the upper control limit (UCL_1) or more than 105 percent of the applicable energy or water performance standard (EPS), whichever is

less, i.e., if $N_2 \leq 0$ and $\bar{x}_1 > \min (UCL_1, 1.05\ EPS)$, the basic model is in noncompliance and testing is at an end.

(3) If the value of N_2 is greater than zero, then the value of the second sample size is determined to be the smallest integer equal to or greater than the solution value of N_2 for equation (6b). If the value of N_2 so calculated is greater than $20-N_1$, set N_2 equal to $20-N_1$.

Step 8. Compute the combined mean ($\bar{x}_2$) of the measured energy or water performance of the N_1 and N_2 units of the combined first and second samples as follows:

$$\bar{x}_2 = \frac{1}{n_1 + n_2}\left(\sum_{i=1}^{n_1+n_2} x_i\right) \qquad (7)$$

Step 9. Compute the standard error (S_{x1}) of the measured energy or water performance of the N_1 and N_2 units in the combined first and second samples as follows:

$$s_{\bar{x}_2} = \frac{s_1}{\sqrt{n_1 + n_2}} \qquad (8)$$

NOTE: S_1 is the value obtained in Step 3.

Step 10(a). For an Energy Efficiency Standard, compute the lower control limit (LCL_2) for the mean of the combined first and second samples using the DOE energy efficiency standard (EES) as the desired mean and a one-tailed probability level of 97.5 percent (equivalent to the two-tailed probability level of 95 percent used in Step 5) as follows:

$$LCL_2 = EES - ts_{\bar{x}_2} \qquad (9a)$$

where the t-statistic has the value obtained in Step 5.

Step 10(b). For an Energy or Water Consumption Standard, compute the upper control limit (UCL_2) for the mean of the combined first and second samples using the DOE energy or water performance standard (EPS) as the desired mean and a one-tailed probability level of 102.5 percent (equivalent to the two-tailed probability level of 95 percent used in Step 5) as follows:

$$UCL_2 = EPS + ts_{\bar{x}_2} \qquad (9b)$$

where the t-statistic has the value obtained in Step 5.

Step 11(a). For an Energy Efficiency Standard, compare the combined sample mean ($\bar{x}_2$) to the lower control limit (LCL_2) to find one of the following:

(1) If the mean of the combined sample ($\bar{x}_2$) is less than the lower control limit (LCL_2) or 95 percent of the applicable energy efficiency standard (EES), whichever is greater, i.e., if $\bar{x}_2 < \max (LCL_2, 0.95\ EES)$, the basic model is in noncompliance and testing is at an end.

(2) If the mean of the combined sample ($\bar{x}_2$) is equal to or greater than the lower control limit (LCL_2) or 95 percent of the applicable energy efficiency standard (EES), whichever is greater, i.e., if $\bar{x}_2 \geq \max (LCL_2, 0.95\ EES)$, the basic model is in compliance and testing is at an end.

Step 11(b). For an Energy or Water Consumption Standard, compare the combined sample mean ($\bar{x}_2$) to the upper control limit (UCL_2) to find one of the following:

(1) If the mean of the combined sample ($\bar{x}_2$) is greater than the upper control limit (UCL_2) or 105 percent of the applicable energy or water performance standard (EPS), whichever is less, i.e., if $\bar{x}_2 > \min (UCL_2, 1.05\ EPS)$, the basic model is in noncompliance and testing is at an end.

(2) If the mean of the combined sample ($\bar{x}_2$) is equal to or less than the upper control limit (UCL_2) or 105 percent of the applicable energy or water performance standard (EPS), whichever is less, i.e., if $\bar{x}_2 \leq \min (UCL_2, 1.05\ EPS)$, the basic model is in compliance and testing is at an end.

Manufacturer-Option Testing

If a determination of non-compliance is made in Steps 6, 7 or 11, the manufacturer may request that additional testing be conducted, in accordance with the following procedures.

Step A. The manufacturer requests that an additional number, N_3, of units be tested, with N_3 chosen such that $N_1+N_2+N_3$ does not exceed 20.

Step B. Compute the mean energy or water performance, standard error, and lower or upper control limit of the new combined sample in accordance with the procedures prescribed in Steps 8, 9, and 10, above.

Step C. Compare the mean performance of the new combined sample to the revised lower or upper control limit to determine one of the following:

a.1. For an Energy Efficiency Standard, if the new combined sample mean is equal to or greater than the lower control limit or 95 percent of the applicable energy efficiency standard, whichever is greater, the basic model is in compliance and testing is at an end.

a.2. For an Energy or Water Consumption Standard, if the new combined sample mean is equal to or less than the upper control limit or 105 percent of the applicable energy or water consumption standard, whichever is less, the basic model is in compliance and testing is at an end.

b.1. For an Energy Efficiency Standard, if the new combined sample mean is less than the lower control limit or 95 percent of the applicable energy efficiency standard, whichever, is greater, and the value of $N_1+N_2+N_3$ is less than 20, the manufacturer may request that additional units be tested. The total of all units tested may not exceed 20. Steps A, B, and C are then repeated.

b.2. For an Energy or Water Consumption Standard, if the new combined sample mean is greater than the upper control limit or 105 percent of the applicable energy or water consumption standard, whichever is less, and the value of $N_1+N_2+N_3$ is less than 20, the manufacturer may request that additional units be tested. The total of all units tested may not exceed 20. Steps A, B, and C are then repeated.

c. Otherwise, the basic model is determined to be in noncompliance.

[63 FR 13321, Mar. 18, 1998]

PART 431—ENERGY EFFICIENCY PROGRAM FOR CERTAIN COMMERCIAL AND INDUSTRIAL EQUIPMENT

Subpart A—General Provisions

Subpart B—Electric Motors

Subpart C—Commercial Refrigerators, Freezers and Refrigerator-Freezers

Subpart D—Commercial Warm Air Furnaces

Subpart E—Commercial Packaged Boilers

Subpart F—Commercial Air Conditioners and Heat Pumps