40 C.F.R. § 1048.310

How must I select engines for production-line testing?

(a) Use test results from two engines each quarter to calculate the required sample size for the model year for each engine family.

(b) Early in each calendar quarter, randomly select and test two engines from the end of the assembly line for each engine family.

(c) Calculate the required sample size for each engine family. Separately calculate this figure for HC + NO$_X$ and CO. The required sample size is the greater of these calculated values. Use the following equation:

$$N = \left[\frac{(t_{95} \cdot \sigma)}{(x - STD)} \right]^2 + 1$$

Where:

N = Required sample size for the model year. t$_{95}$ = 95% confidence coefficient, which depends on the number of tests completed, n, as specified in the table in paragraph (c)(1) of this section. It defines 95% confidence intervals for a one-tail distribution. σ = Test sample standard deviation (see paragraph (c)(2) of this section). x = Mean of emission test results of the sample. STD = Emission standard.