five data pairs and a simple linear regression (unless the threshold approach at paragraph (d)(2)(i)(B) of this section is used) where the dependent variable (Y-axis) is the quality control test value and the independent variable (X-axis) is the ASTM E1333–14 (incorporated by reference, see §770.99) test value or, upon a showing of equivalence in accordance with paragraph (d) of this section, the equivalent ASTM D6007–14 (incorporated by reference, see §770.99) test value. Either composite wood products or formaldehyde emissions reference materials can be used to establish the correlation.

(A) *Cluster Approach.* A panel producer may work with its EPA TSCA Title VI TPC to develop a correlation and linear regression between the TPC's ASTM E1333–14 (incorporated by reference, see §770.99) or equivalent ASTM D6007–14 (incorporated by reference, see §770.99) test method and the panel producer's quality control method under paragraph (b) of this section. In the event of clustered test results, a panel producer may fit a line through a point near the origin (the intersection of the X and Y axes) and the average value of the clustered data pairs. The point near the origin should represent the value for the EPA TSCA Title VI TPC's ASTM E1333–14 (incorporated by reference, see §770.99) or equivalent ASTM D6007–14 (incorporated by reference, see §770.99) test method and the panel producer's quality control method under §770.20(b) when each testing apparatus is empty or when a very low emitting sample is tested. The average value of the clustered data pairs represents the average of a minimum of five data pairs that compare the test results of the EPA TSCA Title VI TPC's ASTM E1333–14 (incorporated by reference, see §770.99) or equivalent ASTM D6007–14 (incorporated by reference, see §770.99) test method with the panel producer's quality control method under paragraph (b) of this section. The line between the point near the origin and the average value of the cluster provides the linear regression. This line may be used by the panel producer and TPC to develop a quality control limit for the product.

(B) *Threshold Approach.* As an alternative to the linear regression and cluster approaches, a panel producer may use the average value of the clustered data pairs from the EPA TSCA Title VI TPC's ASTM E1333–14 (incorporated by reference, see §770.99) or equivalent ASTM D6007–14 (incorporated by reference, see §770.99) test method and the panel producer's quality control method under paragraph (b) of this section as the quality control limit for the product. In this approach, no linear regression line is established. The average value would be assigned as the upper quality control limit for production of the subject composite wood product and must be below the applicable emission standard.

(ii) *Minimum acceptable correlation coefficients (''r'' values).* The minimum acceptable correlation coefficients are as follows, where ''n'' is equal to the number of data pairs, and ''r'' is the correlation coefficient:

Degrees of freedom (n-2)	''r'' value
3	0.878
4	0.811
5	0.754
6	0.707
7	0.666
8	0.632
9	0.602
10 or more	0.576

(iii) *Variation from previous results.* If data from an EPA TSCA Title VI TPC's quarterly test results and a panel producer's quality control test results do not fit the previously established correlation, the panel producer must have its TPC establish a new correlation and new QCLs.

(iv) *Failed quarterly tests.* If a panel producer fails two quarterly tests in a row for the same product type, the panel producer must have its TPC establish a new correlation curve.

(e) *Quality assurance and quality control requirements for panel producers.* Panel producers are responsible for product compliance with the applicable emission standards.

[81 FR 89724, Dec. 12, 2016, as amended at 83 FR 5347, Feb. 7, 2018; 84 FR 43524, Aug. 21, 2019; 88 FR 10477, Feb. 21, 2023]

§ 770.21 Quality control manual, facilities, and personnel.

(a) *Quality control manual.* (1) Each panel producer must have a written

quality control manual. The manual must contain, at a minimum, the following:

(i) A description of the organizational structure of the quality control department, including the names of the quality control manager and quality control employees;

(ii) A description of the sampling procedures to be followed;

(iii) A description of the method of handling samples, including a specific maximum time period for analyzing quality control samples;

(iv) A description of the frequency of quality control testing;

(v) A description of the procedures used to identify changes in formaldehyde emissions resulting from production changes (*e.g.*, increase in the percentage of resin, increase in formaldehyde/urea molar ratio in the resin, or decrease in press time);

(vi) A description of provisions for additional testing;

(vii) A description of recordkeeping procedures;

(viii) A description of labeling procedures;

(ix) The average percentage of resin and press time for each product type;

(x) A description of product types, and if applicable, a description of product variables covered under each product type;

(xi) Procedures for reduced quality control testing, if applicable; and

(xii) Procedures for handling noncomplying lots, including a description of how the panel producer will ensure compliance with the notification requirements of § 770.22(d)(1).

(2) The quality control manual must be approved by an EPA TSCA Title VI TPC.

(b) *Quality control facilities.* Each panel producer must designate a quality control facility for conducting quality control formaldehyde testing.

(1) The quality control facility must be an EPA TSCA Title VI TPC, a contract laboratory, or a laboratory owned and operated by the panel producer.

(2) Each quality control facility must have quality control employees with adequate experience and/or training to conduct accurate chemical quantitative analytical tests. The quality control manager must identify each person conducting formaldehyde quality control testing to the EPA TSCA Title VI TPC.

(c) *Quality control manager.* Each panel producer must designate a person as quality control manager with adequate experience and/or training to be responsible for formaldehyde emissions quality control. The quality control manager must:

(1) Have the authority to take actions necessary to ensure that applicable formaldehyde emission standards are being met on an ongoing basis;

(2) Be identified to the EPA TSCA Title VI TPC that will be overseeing the quality control testing. The panel producer must notify the EPA TSCA Title VI TPC in writing within ten calendar days of any change in the identity of the quality control manager and provide the EPA TSCA Title VI TPC with the new quality control manager's qualifications;

(3) Review and approve all reports of quality control testing conducted on the production of the panel producer;

(4) Ensure that the samples are collected, packaged, and shipped according to the procedures specified in the quality control manual; and

(5) Inform the EPA TSCA Title VI TPC in writing of any significant changes in production that could affect formaldehyde emissions within 72 hours of making those changes.

§ 770.22 Non-complying lots.

(a) Non-complying lots are not certified composite wood products and they may not be sold, supplied or offered for sale in the United States except in accordance with this section.

(b) Non-complying lots must be isolated from certified lots.

(c) Non-complying lots must either be disposed of or retested and certified using the same test method, if each panel is treated with a scavenger or handled by other means of reducing formaldehyde emissions, such as aging. Tests must be performed as follows:

(1) *Quality control tests.* (i) At least one test panel must be selected from each of three separate bundles. The panels must be selected so that they are representative of the entire noncomplying lot and they are not the top or bottom panel of a bundle. The panels