California Environmental Protection Agency
Air Resources Board

Third Party Certifier Bulletin

Composite Wood Products Airborne Toxic Control Measure ***August 2012***
Title 17, California Code of Regulations, Sections 93120-93120.12 ***Issue 1 (Revised)***

This Bulletin is intended to provide information to organizations approved by the California Air Resources Board (CARB) as third party certifiers (TPCs) and their subcontractors regarding the administration of composite wood product certification programs pursuant to the CARB Airborne Toxic Control Measure (ATCM) To Reduce Formaldehyde Emissions From Composite Wood Products (also referred to as the "regulation"). Bulletins contain general information and provide clarifications. In addition, Bulletins encourage the use of testing suggestions to enhance TPC certification programs and to create more uniform practices among all TPCs. Bulletins are directed at TPCs and are intended to supplement information CARB previously provided to TPCs in the form of four TPC Guidelines. Bulletins should not be confused with regulatory advisories, which CARB issues periodically for all regulated entities involved with the sale of composite wood product panels and finished goods in California.

General Information

1. Advisories - As a reminder, new advisories are periodically added to the CARB composite wood products website and have covered topics such as sell-through provisions, labeling, and retroactive certification of "non-complying lots." The CARB composite wood products website is located at www.arb.ca.gov/toxics/compwood/outreach/advisories.htm.

2. Alternative small scale quality control test methods - The CARB regulation lists two small scale quality control (QC) test methods for use by composite wood product manufacturers in conducting their QC testing: ASTM D 5582-00 (desiccator) and ASTM D 6007-02 (small chamber). CARB has approved of five alternative QC test methods. These methods are listed on the CARB composite wood products website and include: the updated Georgia Pacific Dynamic Microchamber (GP^{TM} DMC), the original DMC, EN 120 (perforator), JIS A 1460 (Japanese desiccator), and EN 717-2 (gas analysis). (See www.arb.ca.gov/toxics/compwood/outreach/testmethods.htm.)

3. Status of TPC Executive Order beyond expiration date - Every two years, TPCs are required to apply to CARB for re-approval to be approved TPCs. Once a TPC applies to CARB for re-approval, their Executive Order will remain effective until CARB renews the approval or determines that the TPC no longer can demonstrate that they have the ability or qualifications to perform the requirements of a TPC.

4. Unusual circumstances at time of quarterly mill audit - In the event of unsafe conditions in the area of a composite wood product manufacturing mill (e.g., civil unrest, political instability, natural disaster, etc.), it is reasonable for a TPC not to send their auditor to a mill to conduct a quarterly audit and to obtain samples for a quarterly emissions test. In such an instance, we suggest having the mill send the TPC the panels or samples for the quarterly test and conducting the audit once it is safe, with the understanding that in the interim the mill will inform the TPC of any changes or developments that might affect their certification.

The mill and TPC should document each of these occurrences for auditing purposes. This is an exception and should not be the normal course of business while providing certification services.

5. Long-term certifications by TPCs - We understand that some TPCs issue certifications to composite wood product manufacturing mills that are valid for 1-2 years. While this is acceptable, we want to remind TPCs that these certifications can be invalidated. Nonconformance during a quarterly audit or test would at least temporarily invalidate the 1-2 year certification. TPCs are required to inform CARB immediately if a mill has an invalidated certification.

6. QC testing for approval of NAF/ULEF products – Composite wood product manufacturers are required to work with TPCs to collect QC testing data prior to applying to CARB for exemptions or reduced testing of no-added formaldehyde (NAF) and ultra-low-emitting formaldehyde (ULEF) products. For NAF products, three months of routine QC testing data are required; for ULEF, six months of data are required. Please see page 10 of the application to use NAF or ULEF resins at: http://www.arb.ca.gov/toxics/compwood/naf_ulef/naf_ulefapp.pdf.

7. Certification of Phase 1 composite wood products – As of July 1, 2012, the Phase 2 formaldehyde emission standards were in effect for all composite wood products: hardwood plywood with veneer core (HWPW-VC), hardwood plywood with composite core (HWPW-CC), particleboard, medium density fiberboard (MDF), and thin MDF (MDF with a maximum thickness of 8 mm). It is no longer legal for a TPC to certify Phase 1 composite wood products.

8. TPC annual reports – As a reminder, the ATCM requires all TPCs to provide CARB with an annual report on or before March 1 of each year regarding certification work during the previous year. Appendix 3 of the ATCM lists the minimum requirements for the annual report. Failure to submit an annual report in a timely manner may result in revocation of a TPC's executive order.

Clarifications

9. No certification required for lumber core, special core, or two-ply HWPW - The CARB formaldehyde regulation includes emission standards for hardwood plywood with two core types: veneer core and composite core. Hardwood plywood with veneer core (HWPW-VC) consists of a face veneer (hardwood or decorative softwood species), a back veneer or special back material (e.g., resin impregnated paper), and a core of one or more layers of wood veneer. Hardwood plywood with a composite core (HWPW-CC) only includes composite core as defined by the ATCM. Composite core is limited to particleboard (PB), medium density fiberboard (MDF), and combination core (which consists of layers of veneer and PB or MDF). Composite core does not include lumber core or special core material. Two-ply HWPW does not have a core. Hence, HWPW with lumber core or special core material, and two-ply HWPW do not fall under the applicability of the ATCM and do not qualify as products that can be third party certified under the ATCM. (See related issue under Clarification #12.)

10. TPC inspections - The ATCM requires TPCs to conduct independent inspections and audits of composite wood product manufacturers. These inspections must be conducted by TPC employees or contract employees trained by the TPC to conduct the inspections as stipulated by the TPC's accrediting body. These independent inspections may not be conducted by employees of or affiliated with the manufacturer. TPCs that use subcontractors to conduct mill inspections must notify CARB to include the subcontractors on their CARB Executive Order, similar to including subcontract laboratories.

11. Certification of products, not manufacturers - A TPC's certification of composite wood product manufacturers should be specific to products being certified, not simply that the manufacturing mill complies with section 93120.2(a). As an example, a TPC should issue a certification to a mill for specific products (e.g., 5/8" thick particleboard), not just to the mill itself. Certification of HWPW mills should specify whether HWPW-VC and/or HWPW-CC are being certified, not just HWPW. Likewise, certification of MDF mills should distinguish between MDF and thin MDF.

12. Certification of products that do not fall under the applicability of the ATCM - Products that are not subject to the ATCM (e.g., structural plywood) are precluded from being certified by a TPC as complying with the CARB emission standards. In addition, such products cannot be labeled as complying with the CARB emission standards. A TPC may independently test and report emissions of products that do not fall under the applicability of the ATCM. This can allow a manufacturer or fabricator to verify the emissions of their products. However, such products cannot be certified or labeled as a certified product under the ATCM. This is not to be confused with NAF/ULEF products that have been exempted from TPC and should be labeled as NAF or ULEF.

13. Molded products - Third party certification is only required of HWPW, PB, and MDF made as panels. Products made in molds (e.g., school desk chairs and toilet seats) using wood flour, wood particles, or wood fibers do not fall under the ATCM definition of composite wood products. Hence, molded products are not covered by the ATCM and do not qualify as products that can be third party certified.

14. Particleboard door core - TPCs should be aware that the loading rate and flow/area ratio for emissions testing of particleboard door core in the small chamber (ASTM D 6007) and large chamber (ASTM E 1333) test methods differ from industrial particleboard. Please reference the test methods for the proper loading rates. The loading rate for the large chamber for industrial particleboard panels is 0.43 m^2/m^3, but is 0.13 m^2/m^3 for particleboard door core.

15. Mills that switch TPCs - After being certified by a TPC, some composite wood product manufacturing mills may choose to switch to a different TPC. In this case, the mill's certification does not need to lapse if there is agreement among the two TPCs involved. Since the mill had been previously certified by a TPC, they have demonstrated their ability to comply with all aspects of the regulation, including the required initial qualification emissions testing and auditing. Thus, the mill may not need to duplicate any initial qualification testing, if the new TPC is satisfied with the mill's continued ability to meet the emission standards. To support the previous certification of a mill that is switching TPCs, we recommend that the new TPC conduct an initial audit and some initial emissions testing to establish a correlation between the mill and the primary and/or secondary chambers of the new TPC. This allows the new TPC to establish quality control limits for the mill's

products. The prior TPC and the new TPC should notify CARB of a change in a client mill certification service provider, so that CARB can update our list of certified mills.

16. Late arriving quarterly samples - Composite wood products sent to a TPC for quarterly testing by the TPC's primary or secondary test method should be tested in a timely manner. Conditioning of quarterly samples prior to primary or secondary method testing should begin within 30 days of production. Any samples received by the TPC later than 30 days after the production date should be rejected and the TPC should make arrangements to have additional samples shipped for testing.

17. No production at time of audit - TPCs typically select samples for quarterly tests during their quarterly on-site audits of composite wood product manufacturing mills. If a TPC arrives for an audit and finds no composite wood products available for testing, we recommend that the TPC require the mill to notify the TPC of the earliest feasible date at which time the mill will have production to allow the TPC to return to select samples for the quarterly tests. In such a situation, the quarterly audit and test will be completed as soon as possible beyond the normally scheduled date of the quarterly audit and test.

Testing Suggestions

18. Time between collection of QC samples and laboratory analysis - TPCs should make composite wood product manufacturers aware of the importance of minimizing the time between collection of QC samples and laboratory analysis of those samples, to help the manufacturer avoid selling non-complying lots before the manufacturer receives results of the QC samples. Hence, the time between collection of QC samples and receipt of results should be set based on how quickly newly made panels are typically shipped from the manufacturing mill.

19. QC testing requirements for mills not producing products on a routine basis - In situations in which a composite wood product manufacturer does not plan to make CARB-certified, NAF or ULEF products on a routine basis, enough QC testing data must be collected to represent a minimum of weekly tests (e.g., four samples per month). In the case of data collection for qualification of a NAF product in which three months of data are required, this would amount to a minimum of 13 samples for a quarter. For a ULEF product, this would amount to a minimum of 26 samples for two quarters. For HWPW mills, the minimum number of routine tests (based on weekly production) that are specified in the ATCM [Appendix 2, subsection (g)(4)(C)] must be followed.

20. Mills that do not produce CARB-certified products during a quarter - Some composite wood product manufacturing mills may have received their CARB certification from a TPC and then later decide not to produce CARB-certified products for a quarter (three months) or longer. Since no products are being produced, no quarterly verification or QC testing can be conducted. In such situations, we recommend that TPCs coordinate the suspension of quarterly verification testing and inspections, and allow the mill to remain certified, with the understanding that the mill is to notify the TPC once they commence production of CARB-certified products. We also recommend that TPCs seek confirmation (e.g., a letter or email) from the manufacturer that no CARB-certified products were produced during the quarter. We recommend that the TPC conduct an initial mill qualification evaluation as soon as possible following notification by the mill that they have re-started production of

CARB-certified products. This should be followed by resumption of quarterly verification testing and inspections. Until CARB-certified production resumes, on-site inspections every six months are suggested.

21. Background formaldehyde in conditioning room and laboratory - When testing low emitting composite wood products (e.g., Phase 2 HWPW, NAF and ULEF products), additional measures may be needed to remove background formaldehyde from the air in the conditioning room, laboratory, and testing chambers. While the ASTM methods only require background formaldehyde for conditioning of below 0.1 parts per million, background concentrations of slightly below this level would be higher than the concentrations encountered with low emitting products. Hence, additional purification of the background air may be necessary to avoid having formaldehyde in the background air interfere with testing.

For More Information

For questions related to this bulletin, please contact us. Staff contacts are provided at the ATCM website at: http://www.arb.ca.gov/toxics/compwood/compwood.htm. To obtain a copy of the ATCM, or other related information or documents, visit the ATCM website.