

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER N-21-408

Relating to CARB Approval for an Exemption from Third-Party Certification  
for Composite Wood Product Manufacturers that use  
Ultra-low-emitting Formaldehyde Resins under  
section 93120.3, title 17, California Code of Regulations

**AOI-YAMA Indústria de Compensados Ltda.**

Whereas, the California Air Resources Board (CARB) has adopted the “Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products” (ATCM; title 17, California Code of Regulations, sections 93120-93120.12), which establishes formaldehyde emission standards for composite wood products;

Whereas, section 93120.1(a)(42) of the ATCM defines “ultra-low-emitting formaldehyde” (ULEF) based resins to mean resins formulated such that average formaldehyde emissions are consistently below the Phase 2 emission standards in section 93120.2, for making hardwood plywood (HWPW), particleboard (PB), medium density fiberboard (MDF), or thin medium density fiberboard (tMDF);

Whereas, section 93120.3(d) of the ATCM allows manufacturers of HWPW, PB, MDF, and tMDF who use ULEF-based resins to apply for written approval from the Executive Officer for an exemption from the requirements of section 93120.3(b) of the ATCM;

Whereas, section 93120.3(d) of the ATCM allows manufacturers of HWPW, PB, MDF, and tMDF who use ULEF-based resins to submit an application for an exemption from the requirements of section 93120.3(b) of the ATCM to the Executive Officer, which includes: (A) a statement indicating which product types will be manufactured using ULEF-based resins for sale in California; (B) the chemical formulation of the candidate ULEF-based resins, including base resins, scavenger resins, scavenger additives, catalysts, and other additives as used in manufacturing; (C) the name of their CARB-approved third-party certifier (TPC); and (D) data on the emissions performance of the candidate ULEF-based resins;

Whereas, the data on emissions performance of the candidate ULEF-based resin required in section 93120.3(d) of the ATCM must be obtained by working with a CARB-approved TPC, and must include six months of routine quality control testing data, the correlation of the routine quality control testing data to primary or secondary testing data, and the results of two primary or secondary method tests, as required in Appendix 2 of section 93120.12 of the ATCM;

Whereas, section 93120.3(d)(2) of the ATCM requires that 90 percent of the six months of routine quality control testing data and the results of two primary or secondary method tests must be shown to be no higher than 0.04 parts per million (ppm), and that all data must be shown to be no higher than 0.05 ppm for HWPW and 0.06 ppm for PB, MDF, and MDF;

Whereas, section 93120.3(d)(5) of the ATCM provides that the Executive Officer shall approve the application and issue an Executive Order if the evidence submitted by the applicant is sufficient to demonstrate that the applicant has met the requirements specified in sections 93120.3(d)(1) and 93120.3(d)(2) of the ATCM;

Whereas, AOI-YAMA Indústria de Compensados Ltda. (AOI-YAMA or the applicant) submitted an original application that we received on August 20, 2019;

Whereas, the original application from AOI-YAMA specified the range in product manufacturing parameters, applicable post-press product treatments, base resin trade name(s) and base resin manufacturer(s)/supplier(s), and other ingredients added to the base resin by the applicant to manufacture ULEF hardwood plywood-veneer core (HWPW-VC) products;

Whereas, CARB was provided base resin/adhesive information specifying the base resin polymer type and minimum and maximum values of all major and any minor ingredients in the base resin on a percent weight of solids basis;

Whereas, the base resins/adhesive supplier, commercial name, and resin type are set forth in Confidential Attachment A;

Whereas, section 93120.3(d) of the ATCM allows ULEF product manufacturers to apply for re-approval by CARB by submitting an updated application;

Whereas, AOI-YAMA submitted the original and the updated applications for approval to CARB as follows:

Executive Order #	Received Date	Signed Date	Actions
N-19-408	08/20/2019	09/27/2019	Original

Whereas, AOI-YAMA submitted an updated application for re-approval to CARB on July 23, 2021;

Whereas, the updated application for renewal from AOI-YAMA was deemed complete on August 2, 2021;

Whereas, the Executive Officer finds that the completed, updated application demonstrated the ULEF manufacturer's ability to continue to comply with section 93120.3(d) of the ATCM; and

Whereas, the Executive Officer approved AOI-YAMA's request for re-approval, and it is appropriate that Executive Order N-19-408 be superseded by Executive Order N-21-408.

Now, therefore, it is ordered that AOI-YAMA is hereby approved as a ULEF manufacturer of HWPW-VC that is exempt from the requirements of section 93120.3(b) and Appendix 2 of section 93120.12 of the ATCM, provided that the following terms and conditions are met for products sold, supplied, offered for sale, or manufactured for sale in California:

1. AOI-YAMA must use the commercial resins and suppliers listed in Section A of Confidential Attachment A of this Executive Order for the manufacture of ULEF HWPW-VC products.
2. As specified in Section B of Confidential Attachment A, AOI-YAMA is legally responsible for ensuring that the base resin specifications are within the ranges specified in the original application and any subsequent amendments of this Executive Order.
3. The application rate of the base resins used for the manufacture of ULEF composite wood products by AOI-YAMA must be within the ranges specified in Section C of Confidential Attachment A of this Executive Order.
4. Other chemical components of the base resins (such as sizing wax and release wax) used for the manufacture of ULEF HWPW-VC products by AOI-YAMA must be within the ranges specified in Section D of Confidential Attachment A of this Executive Order.
5. The allowable operating parameters for press temperature and press time for the base resins used to manufacture the ULEF HWPW-VC products by AOI-YAMA must be within the ranges specified in Section E of Confidential Attachment A of this Executive Order.
6. Only the composite wood products with the product names listed in Section F of Confidential Attachment A of this Executive Order are authorized under this Executive Order.

Be it further ordered that Executive Order N-21-408 supersedes Executive Order N-19-408, which was signed on September 27, 2019.

Be it further ordered that AOI-YAMA may change the resin system supplier listed in Section A of Confidential Attachment A of this Executive Order if the new resin supplier supplies the same resin type listed in Confidential Attachment A of this Executive Order, at least two primary or secondary method tests are performed on random samples selected by their CARB-approved TPC, and the Chief of the

Risk Reduction Branch within the Transportation and Toxics Division is notified before AOI-YAMA uses the resin for production.

Be it further ordered that AOI-YAMA must conduct confirmatory testing for a new resin system by demonstrating that the results of two primary or secondary method tests for the new resin system are no higher than 0.04 ppm for the ULEF products authorized under this Executive Order.

Be it further ordered that the Executive Officer may review and, for good cause, modify or revoke this Executive Order as provided in section 93120.3(d)(5) of the ATCM. The Executive Officer shall not modify or revoke this Executive Order without affording the applicant the opportunity for a hearing in accordance with the procedures specified in title 17, California Code of Regulations, section 60055.1 et seq.

Be it further ordered that this Executive Order shall have a duration of two years from the date this Executive Order is signed; the applicant may apply for re-approval as provided in section 93120.3(d)(5) of the ATCM.

Be it further ordered that the applicant must maintain records in electronic or hard copy form for two years, for review by CARB upon request, as specified in section 93120.3(g) of the ATCM.

Be it further ordered that the applicant must notify the Executive Officer in writing within 30 days if there is any change in their product manufacturing parameters or base resin manufacturer(s) or supplier(s) that does not comply with any of the requirements, terms or conditions specified in the ATCM or this Executive Order.

Executed at Sacramento, California on this 2nd day of September, 2021.

A handwritten signature in blue ink, appearing to read 'R. Krieger', is written above a horizontal line.

Robert Krieger, Chief  
Risk Reduction Branch  
Transportation and Toxics Division