

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER N-16-180

Relating to ARB-Approval to conduct primary/secondary method and routine quality control testing at a less frequent rate by Composite Wood Product Manufacturers that use Ultra-low-emitting Formaldehyde Resins under section 93120.3, title 17, California Code of Regulations

**Foresco Co., Ltd (Foresco)**

WHEREAS, the Air Resources Board (ARB) has adopted the "Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products" (the "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) 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 resins to apply for written approval from the Executive Officer for an approval to conduct primary/secondary method and routine quality control testing at a less frequent rate than specified in sections 93120.3(b) and 93120.12, Appendix 2, of the ATCM;

WHEREAS, section 93120.3(d) of the ATCM allows manufacturers of HWPW, PB, MDF, and tMDF who use ULEF resins to submit an application for approval to test their products at a less frequent rate than specified in sections 93120.3(b) and 93120.12, Appendix 2 of the ATCM to the Executive Officer, which includes: (A) a statement indicating which product types will be manufactured using ULEF resins for sale in California; (B) the chemical formulation of the candidate ULEF resin(s), including base resins, scavenger resins, scavenger additives, catalysts, and other additives as used in manufacturing; (C) the name of their ARB-approved third party certifier; and (D) data on the emissions performance of the candidate ULEF resin(s);

WHEREAS, the data on emissions performance of the candidate ULEF resin required in section 93120.3(d) of the ATCM must be obtained by working with an ARB-approved third party certifier, and must include six months of routine quality control testing data, the correlation of the routine quality control testing data to primary or secondary method 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)(1) of the ATCM requires that ninety percent of the six months of routine quality control testing data and the results of two primary/secondary method tests be no greater than 0.06 parts per million (ppm) for MDF and 0.08 ppm for tMDF, and all data must be shown to be no higher than 0.09 ppm and 0.11 ppm for ULEF manufacturers of MDF and tMDF respectively, to gain approval to conduct their emission testing at a less frequent rate than specified in sections 93120.3(b) and 93120.12, Appendix 2;

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) of the ATCM;

WHEREAS, Foresco Co., Ltd (Foresco or the "applicant") submitted an original application dated February 10, 2014;

WHEREAS, the original application from Foresco 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 MDF and tMDF products;

WHEREAS, ARB 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)(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 section 93120.3(d)(1) of the ATCM;

WHEREAS, the Executive Officer finds that the evidence submitted by the applicant meets the criteria specified in sections 93120.3(d)(1) and 93120.3(d)(5) of the ATCM for an ULEF manufacturer to test their products at a less frequent rate;

WHEREAS, the original application from Foresco was deemed complete on December 11, 2014, and Foresco was issued Executive Order N-14-180, signed on December 18, 2014;

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

WHEREAS, Foresco submitted an updated application for re-approval to ARB on November 29, 2016;

WHEREAS, the updated application for re-approval from Foresco was deemed complete on December 15, 2016;

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 Foresco's request for re-approval and it is appropriate that Executive Order N-14-180 be superseded by this Executive Order N-16-180;

NOW, THEREFORE, IT IS ORDERED that Foresco is hereby approved as an ULEF manufacturer of MDF and tMDF and qualified to test their MDF and tMDF less frequently, as specified by the requirements of section 93120.12, Appendix 2, subsections (f) and (g) 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. Foresco must use the commercial resins listed and suppliers listed in section A of Confidential Attachment A of this Executive Order for the manufacture of ULEF MDF and tMDF products.
2. The chemical formulation of the base resins used for the manufacture of ULEF composite wood products by Foresco must be within the ranges specified in section B of Confidential Attachment A of this Executive Order.
3. As specified in section B of Confidential Attachment A, Foresco is legally responsible for insuring that the base resin is within the ranges specified in section B.
4. The application rate of the base resins used for the manufacture of ULEF composite wood products by Foresco must be within the ranges specified in section C of Confidential Attachment A of this Executive Order.
5. Other chemical components of the base resins (such as sizing wax and release wax) used for the manufacture of ULEF MDF and tMDF products by Foresco must be within the ranges specified in section D of Confidential Attachment A of this Executive Order.
6. The allowable operating parameters for press temperature and press time for the base resins used to manufacture the ULEF MDF and tMDF products by Foresco must be within the ranges specified in section E of Confidential Attachment A of this Executive Order.



7. 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 Foresco is approved to conduct primary/secondary method tests at least once every six months, and routine quality control tests at least once per week on their ULEF MDF and tMDF products;

BE IT FURTHER ORDERED that Foresco 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 ARB-approved third party certifier, and the Chief of the Emissions Assessment Branch of the Transportation and Toxics Division is notified before Foresco uses the resin for production;

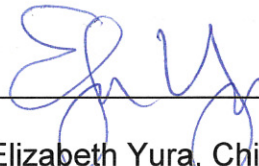
BE IT FURTHER ORDERED that Foresco must conduct confirmatory testing for a new resin supplier by demonstrating that the results of two primary or secondary method tests for the new resin system supplier are no higher than 0.06 ppm for MDF and 0.08 ppm for tMDF for the ULEF products authorized under this Executive Order;

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 ARB 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 this 30 day of December, 2016.



Elizabeth Yura, Chief  
Emissions Assessment Branch  
Transportation and Toxics Division