State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER N-16-228

Relating to ARB-Approval to use No-added Formaldehyde Resins by Composite Wood Product Manufacturers under section 93120.3, title 17, California Code of Regulations

**Guangxi Goalin Forestry Inc.**
**(GGF, Inc.)**

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)(29) of the ATCM defines "no-added formaldehyde (NAF) based resins" to mean resins formulated with NAF as part of the resin cross linking structure for making hardwood plywood, particleboard, or medium density fiberboard, including, but not limited to resins made from soy, polyvinyl acetate, or methylene diisocyanate;

WHEREAS, section 93120.3(c) of the ATCM allows manufacturers of hardwood plywood, particleboard, and medium density fiberboard who use NAF 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(c) of the ATCM allows manufacturers of hardwood plywood, particleboard, and medium density fiberboard who use NAF 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 NAF based resins for sale in California; (B) the chemical formulation of the candidate NAF based resin(s), including base resins, catalysts, and other additives used in manufacturing; (C) the name of their ARB-approved third party certifier; and (D) data on emissions performance of the candidate NAF based resin(s);

WHEREAS, the data on emissions performance of the candidate NAF based resin required in section 93120.3(c) of the ATCM must be obtained by working with an ARB-approved third party certifier, and must include three 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 one primary or secondary method test, as required in Appendix 2 of section 93120.12 of the ATCM;

WHEREAS, section 93120.3(c)(1) of the ATCM requires that ninety percent of the three months of routine quality control testing data and the result of one primary or secondary method test 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 hardwood plywood and 0.06 ppm for particleboard, medium density fiberboard, and thin medium density fiberboard;

WHEREAS, section 93120.3(c)(4) 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(c)(1) of the ATCM;

WHEREAS, Guangxi Goalin Forestry Inc. (GGF, Inc. or the "applicant") submitted an application that we received on July 7, 2016;

WHEREAS, the application from GGF, Inc. was deemed complete on October 6, 2016;

WHEREAS, the application from GGF, Inc. specifies 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 NAF thin medium-density fiberboard (tMDF) products;

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

WHEREAS, the base resin/adhesive information was provided to ARB by GGF, Inc.'s resin supplier, and is set forth in Confidential Attachment A;

WHEREAS, section 93120.3(c)(4) 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(c)(1) of the ATCM; and

WHEREAS, the Executive Officer finds that the evidence submitted by the applicant meets the criteria specified in section 93120.3(c)(4) of the ATCM.

NOW, THEREFORE, IT IS ORDERED that GGF, Inc. is hereby approved as a NAF manufacturer of tMDF provided that the following terms and conditions are met for products sold, supplied, offered for sale, or manufactured for sale in California;

1. GGF, Inc. must use the commercial resin listed and supplier listed in section A of Confidential Attachment A for the manufacture of NAF tMDF.
2. The chemical formulation of the base resin used for the manufacture of NAF composite wood products by GGF, Inc. must be within the ranges specified for the base resin named in section B of Confidential Attachment A.
3. As specified in section B of Confidential Attachment A, GGF, Inc. 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 NAF composite wood products by GGF, Inc. must be within the ranges specified in section C of Confidential Attachment A.
5. Other chemical components of the base resins (such as sizing wax and release wax) used for the manufacture of NAF composite wood products by GGF, Inc. must be within the ranges specified in section D of Confidential Attachment A.
6. The allowable operating parameters for press temperature and press time for the base resins used to manufacture the NAF composite wood products by GGF, Inc. must be within the ranges specified in section E of Confidential Attachment A.
7. Only the composite wood products with the product names listed in section F of Confidential Attachment A are authorized under this Executive Order.

BE IT FURTHER ORDERED that GGF, Inc. may change the resin system supplier listed in section A of Confidential Attachment A if the new resin supplier supplies the same resin type listed in Confidential Attachment A, confirmatory emission tests are conducted, and the Chief of the Emissions Assessment Branch within the Transportation and Toxics Division is notified in advance of using the new resin system for production;

BE IT FURTHER ORDERED that GGF, Inc. must conduct confirmatory testing for any new resin supplier by demonstrating that the result of one primary or secondary method test for the new resin system supplier are no higher than 0.04 ppm for the NAF products authorized under this Executive Order;

BE IT FURTHER ORDERED that this Executive Order shall have a duration of two years, and the applicant may apply for re-approval as provided in section 93120.3(c)(4) of the ATCM;

BE IT FURTHER ORDERED that the application for re-approval specified in section 93120.3(c)(4) of the ATCM, as applicable, requires the applicant to submit the result of at least one primary or secondary method test for the NAF products listed in Confidential Attachment A based on panels or a set of panels randomly selected and

tested by an ARB-approved third party certifier, and the chemical formulation of the NAF based resin(s). In addition, at least one primary or secondary method test must be provided for each facility which operates in accordance with this Executive Order, and the applicant must also include a current list of their resin suppliers.

BE IT FURTHER ORDERED that section 93120.3(c)(6) of the ATCM, as applicable, specifies that if the applicant decides to change to a formaldehyde based resin system, the applicant must notify ARB in advance of changing resin systems and must comply with the requirements of section 93120.3(b) of the ATCM for that product type.

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(c)(4) 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 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 of any change in their product manufacturing parameters or base resin manufacturer(s) or supplier(s) that constitute a modification outside the scope of their application for reduced testing under or an exemption from the requirements in section 93120.3(b) of the ATCM.

Executed at Sacramento, California this 13 day of October, 2016.

Elizabeth Yura, Chief
Emissions Assessment Branch
Transportation and Toxics Division