



**Application for Composite Wood Product Manufacturers:  
Approval for Designation as a No Added Formaldehyde (NAF) or  
Ultra-low-emitting Formaldehyde (ULEF) Product Manufacturer**

<b>Mail Completed Applications to:</b>	California Air Resources Board Transportation and Toxics Division ATTN: NAF/ULEF Program Coordinator P.O. Box 2815 Sacramento, California 95812-2815
<b>Email Completed Applications to:</b>	<a href="mailto:compwood@arb.ca.gov">compwood@arb.ca.gov</a>
<b>Application Date:</b>	
<b>Company Name:</b>	
<b>Type of Application:</b>	<input type="checkbox"/> No Added Formaldehyde (NAF) <input type="checkbox"/> Ultra-low-emitting Formaldehyde (ULEF)
<b>Composite Wood Product(s):</b>	<input type="checkbox"/> Hardwood Plywood – Veneer Core <input type="checkbox"/> Hardwood Plywood – Composite Core <input type="checkbox"/> Medium Density Fiberboard (Thickness > 8 mm) <input type="checkbox"/> Thin Medium Density Fiberboard (Thickness ≤ 8 mm) <input type="checkbox"/> Particleboard
<b>Confidential Business Information:</b>	<input type="checkbox"/> Please check this box if the application contains proprietary information that is confidential.
<b>Application Type:</b>	<input type="checkbox"/> <b>New Application</b> – Please complete the entire application. <input type="checkbox"/> <b>Amendment</b> – Please complete all sections affected by the proposed modification(s) to the resin system or production parameter(s) for your product. <input type="checkbox"/> <b>Renewal</b> – Please complete this page and submit the required compliance test data for your NAF or ULEF product(s).
<b>Have You Provided:</b>	<input type="checkbox"/> Small-scale test data in electronic form (i.e., Excel file on CD or email) <input type="checkbox"/> Copies of your compliance test data from your third party certifier <input type="checkbox"/> The trade name of your product(s) <input type="checkbox"/> Core material suppliers for NAF Hardwood Plywood – Composite Core and Hardwood Plywood – Veneer Core <input type="checkbox"/> Production parameters information in the specified units

CONFIDENTIAL INFORMATION SUBMITTAL FORM

If you wish to designate any information in this application as **CONFIDENTIAL INFORMATION**, please provide the information requested below and return it with your completed application.

In accordance with Title 17, California Code of Regulations (CCR), sections 91000 to 91022, and the California Public Records Act (Government Code Section 6250 et seq.), the information that a company provides to the Air Resources Board (CARB) may be released (1) to the public upon request, except trade secrets which are not emissions data or other information which is exempt from disclosure or the disclosure of which is prohibited by law; and (2) to the Federal Environmental Protection Agency (EPA), which protects trade secrets as provided in Section 114(c) of the Clean Air Act and amendments thereto (42 USC 7401 et seq.) and in federal regulation; and (3) to other public agencies provided that those agencies preserve the protections afforded information which is identified as a trade secret, or otherwise exempt from disclosure by law (Section 39660(e)).

Trade secrets as defined in Government Code Section 6254.7 are not public records and therefore will not be released to the public. However, the California Public Records Act provides that air pollution emission data are always public records, even if the data comes within the definition of trade secrets. On the other hand, the information used in calculation information is a trade secret.

If any company believes that any of the information it may provide is a trade secret or otherwise exempt from disclosure under any other provision of law, **it must identify the confidential information as such at the time of submission to ARB and must provide the name, address, and telephone number of the individual to be consulted**, if ARB receives a request for disclosure or seeks to disclose the data claimed to be confidential. ARB may ask the company to provide documentation of its claim of trade secret or exemption at a later date. Data identified as confidential will not be disclosed unless ARB determines, in accordance with the above referenced regulations, that the data do not qualify for a legal exemption from disclosure. The regulations establish substantial safeguards before any such disclosure.

In accordance with the provisions of Title 17, California Code of Regulations, sections 91000 to 91022, and the California Public Records Act (Government Code Sections 6250 et seq.),

**Company name:** \_\_\_\_\_  
declares that only those portions specifically identified and submitted in this application are confidential "**trade secret**" information, and requests that it be protected as such from public disclosure. All inquiries pertaining to the confidentiality of this information should be directed to the following person:

Name (please print): \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone #: \_\_\_\_\_

Email: \_\_\_\_\_

**Company Address:**  
\_\_\_\_\_

## Company Information

<b>Company Name:</b>	
<b>Mailing Address (City, State, Country, etc.):</b>	
<b>Company Web Site Address:</b>	
<b>Contact Person and Title:</b>	
<b>Contact's Phone No.:</b>	
<b>Contact's Fax No.:</b>	
<b>Contact's Email Address:</b>	
<b>Name of Preparer/Consultant (if applicable):</b>	
<b>Preparer/Consultant's Phone No.:</b>	
<b>Preparer/Consultant's Email Address:</b>	

**NOTE TO APPLICANTS:** The following acronyms are used in the application form:

ATCM	Airborne Toxic Control Measure
CARB	California Air Resources Board
HWPW-VC	Hardwood Plywood – Veneer Core
HWPW-CC	Hardwood Plywood – Composite Core
MDF	Medium Density Fiberboard
NAF	No-added Formaldehyde
PB	Particleboard
QC	Quality Control
tMDF	Thin Medium Density Fiberboard
TPC	Third Party Certifier
ULEF	Ultra-low-emitting Formaldehyde

Application to use NAF or ULEF Resins: Composite Wood Product  
Manufacturer Information

**1. Action Requested and Background**

a) This application is for:

- NAF based exemption (NAF) – see note below
- ULEF – reduced testing (ULEF-reduced)
- ULEF – exempt status (ULEF-exempt)
- Amendment for Executive Order No. \_\_\_\_\_ (see Attachment B)
- Renewal for Executive Order No. \_\_\_\_\_ (see Attachment C)

Describe the product(s) to be made (e.g., particleboard made with a phenol formaldehyde resin; trade name LoFoPB, thickness range 0.5 to 1 inch (or the invoice number for your NAF or ULEF product)):

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Is the product made only for use by the applicant?    Yes       No

**Note: For manufacturers of NAF hardwood plywood – composite core and hardwood plywood – veneer core, please include a list of your core suppliers as part of Attachment A. For a product to be designated as NAF, the core material must be supplied by a CARB approved NAF manufacturer.**

b) If applying for a NAF exemption, does your facility currently use formaldehyde containing resins for any composite wood products?

- Yes       No

c) If yes, please list the composite wood products (e.g., hardwood plywood, particleboard, or MDF) that are being made with formaldehyde containing resins:

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d) Name and number of your CARB approved TPC  
(<http://www.arb.ca.gov/toxics/compwood/listoftpcs.htm> ):

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## 2. Summary of Qualifying Test Results for Composite Wood Products Manufactured with NAF, ULEF-reduced, or ULEF-exempt Resins.

Please summarize your qualification test results by submitting information in three parts:

- Part (1): Compliance tests conducted by your CARB approved TPC;
- Part (2): Correlation tests between results of the primary or secondary compliance test conducted by your TPC and the corresponding quality control (QC) test results measured by the applicant mill's QC personnel; and
- Part (3): QC test data as described in Attachment A (i.e., minimum three-months for NAF and six-months for ULEF).

Note: If you are applying for more than one product approval (e.g., HWPW-VC and HWPW-CC), submit a separate Table 1 for each product.

INSTRUCTIONS: Table 1. Summary of Qualifying Test Results for NAF and ULEF Products

Section A: Product Type and Name: For product type, specify whether your product is a NAF or ULEF product, and the type of composite wood product (e.g., MDF). Product name refers to the trade name of the product that is sold to your customers. Use the same product type and name in Part 3, Table 2, and in Parts 4 and 5.

**Test Method:** Specify either primary (ASTM E 1333) or secondary test method (ASTM D 6007 shown to be equivalent to ASTM E 1333).

**Compliance Test Result:** Measured formaldehyde concentration in ppm of candidate NAF/ULEF product (i.e., one for NAF and two for ULEF, along with copies of the quarterly primary or secondary method test reports from your third party certifier).

Section B: Pair No.: Number of paired test [Note: If you have additional data you wish to submit, please add a note in Part 2 and attach the data in attachment A.]

**Compliance Test (ppm):** Measured formaldehyde concentration from primary or secondary method tests performed on each sample used to establish your correlation.

**Quality Control Test Result:** Measured formaldehyde concentration from quality control tests performed on each sample used to establish your correlation. Provide the test results in the concentration units common to the test (e.g., µg/mL for ASTM D 5582, ppm for ASTM D 6007).

**Correlated ppm Value:** Compliance test "ppm" value corresponding to the measured quality control test result calculated using the linear regression equation provided below.

**Quality Control Test Method:** Specify the test method used (e.g., ASTM D 5582, ASTM D 6007, JIS A 1460).

**Linear Regression Equation and Correlation Value (r):** Provide the regression equation used to calculate the equivalent compliance test method value (in ppm) from measured quality control test value, and the correlation value for the regression equation (i.e., "QC test value" = "x(ASTM E 1333 test value) + y" (where x and y are constants)).

Section C: Refer to Page 12 of this application.

(See Instructions on Page 5)

<b>Table 1. Summary of Qualifying Test Results for NAF and ULEF Products</b>			
Section A. Compliance Test Result			
Product Type and Name	Test Method	Compliance Test Result (ppm)	
Section B. Correlation Test Results			
Pair No.	Compliance Test (ppm)	Quality Control Test Result	Correlated Value (ppm)
1			
2			
3			
4			
5			
Quality Control Test Method:			
Linear Regression Equation:			
Correlation Value (r):			
Section C. Quality Control Test Results			
Label as "Attachment A." Attach a copy of the quality control test results for the product, following the instructions on page 12 of this application. Minimum data set: three-months for NAF products, six-months for ULEF-reduced or ULEF-exempt products.			

### 3. Product Manufacturer and Resin Information

#### INSTRUCTIONS:

**Composite Wood Product Manufacturer:** Enter your company's name.

#### Table 2. Composite Wood Product Information

**Product Name:** Provide the "Product Type and Name" for the range of products verified by the compliance test data result in Table 1. Use the same "Product Type and Name" you listed in Table 1 on page 6. **For example: NAF PB, Trade name: XYZ panel for particleboard panels ranging in thickness from 0.25 to 1.0 inch.**

**Range in Production Parameters:** Provide a numerical range for press time (minutes), press temperature (degrees Celsius), and resin application rate. For HWPW, provide a spread rate in pounds of per thousand square feet of single glue line. PB and MDF provide resin usage in kilograms per cubic meter. For all products, the range should include allowances for plant operation during warm and cold seasons of a year.

**Post-press Product Treatment:** Please indicate any post-press treatment(s), if applicable, that your product is subjected to that may modify its formaldehyde emissions.

#### Table 3. Resin Information (for the Product Type Specified in Table 2)

**Category:** Specify the resin used, as appropriate, in the face, core, or both layers (single-system) of your product.

**Resin(s) Used: Trade Name(s) and Manufacturer(s)/Supplier(s):** Provide the trade name(s) and manufacturer(s) and/or supplier(s) of the resins used to manufacture your product. If applicable, specify face and core resins separately.

**Estimated Annual Usage:** Provide an estimate/projection of the total amount of resin(s) used to manufacture your product(s) in a one-year period. The estimate, in pounds or kilograms, represents the weight of resin that you purchase from your supplier in a 12-month period. Indicate if the resin is supplied to you as a liquid or a dry solid.

#### Table 4. Ingredients Added by Composite Wood Product Manufacturers (for the Product Type Specified in Table 2)

**Ingredient (CAS Number):** List all ingredients that you add to the resin you buy from your supplier prior to pressing, if applicable. This may include catalysts (e.g., ammonium chloride), buffers (e.g., ammonia), scavengers (e.g., urea), fire retardants, wax, biocides, etc. If no additional ingredients are added to the base resin, indicate as "None." If an ingredient does not have a CAS number, please provide an explanation.

**Amount Added per Pound of Base Resin:** Provide the range in the amount (pounds) of ingredient added per pound of resin purchased from your supplier.

### 3. Product Manufacturer and Resin Information (See instructions on Page 7)

NOTE: Submit one copy of this page for each product type being made with the NAF or ULEF resin.

Company Name: \_\_\_\_\_

Table 2. Composite Wood Product ("Product") Information			
Product Type and Name	----- Range in Production Parameter -----		
	Press Time (Minutes)	Press Temperature (°C)	Resin Application Rate
Thickness (inches):			
Post-press Product Treatment, if applicable:			

Table 3. Resin Information (for the Product Type and Name Specified in Table 2)		
Category	Resin(s) Used: Trade Name(s) and Supplier(s)	Estimated Annual Usage (Pounds or Kilograms)
Face:		
Core:		
Single-system:		

Table 4. Ingredients Added by Composite Wood Product Manufacturers (for the Product Type and Name Specified in Table 2)		
Ingredient (CAS Number)	Amount Added per Pound of Base Resin (100 Percent Solids Basis)	
	Minimum	Maximum



## 4. Resin Ingredient Information

**INSTRUCTIONS:** This part requires information from both composite wood product manufacturers and resin manufacturers, in cases where the resin formulation data are held confidential by the resin supplier.

### INFORMATION PROVIDED BY COMPOSITE WOOD PRODUCT MANUFACTURERS:

**Company Name:** Enter the name of your company.

**Address:** Enter your company's mailing address, including city, state, country, and postal code.

**Email:** Enter the email address for the company contact person from page 1.

**Product Name:** Enter the "Product Name" from Table 2. If you are applying for more than one product approval, submit one copy of this page for each product.

**Name of Typical Resin Name:** Enter the name of the "typical resin" that corresponds to the specified product type.

**NOTE:** After supplying the information above, manufacturers are asked to send a copy of "page 10" to their resin supplier(s) to fill out for each resin that will be used to make their product(s). Resin suppliers are asked to provide the information in Table 5 and their contact information. **Completed copies of "page 10" can be sent directly to CARB by mail or email to the addresses on Page 1 of the application.**

### INFORMATION PROVIDED BY RESIN MANUFACTURERS/SUPPLIERS:

#### Table 5. Base Resin/Adhesive Information

**Base Resin Type:** Specify the type of base resin used by the composite wood product manufacturer (e.g., UF + melamine, PVA).

**Molar Ratio:** For ULEF resins, specify the formaldehyde:urea, formaldehyde:phenol, etc., molar ratio (e.g., 1:1, 1.07:1, etc.)

**Ingredient Name:** List all ingredients in the resin. Please include organic compounds (carbon-based compounds), inorganic compounds (e.g., calcium carbonate, titanium dioxide, etc.), and water content.

**CAS No.:** Enter the Chemical Abstract Service (CAS) number for the ingredient listed. If a CAS number is not provided, please provide a description of the ingredient and an explanation as to why a CAS number cannot be provided. If an ingredient does not have a CAS number, please provide an explanation.

**% by Weight Values:** Record the minimum and maximum "% by weight" of the ingredients in the resin formulation that will be used. The sum of the "% by weight" values should approximate 100 percent.

#### Resin Manufacturer and Resin Information

**Company Name and Mailing Address:** Enter the name of your company and mailing address.

**Contact Information:** Enter the contact person's name, title, phone number, and email address.

#### 4. Resin Ingredient Information (See instructions on Page 9)

**NOTE:** The box below is to be completed by applicants whose resin suppliers deem their resin formulation confidential. In such cases, Table 5 and “Resin Manufacturer Information” are to be provided by the applicant’s resin supplier who can transmit their confidential information to CARB under separate cover by mail or email to the addresses on Page 1 of the application.

<b>Company Name:</b>	
Mailing Address:	
<u>Product Type and Name (from Table 2)</u>	<u>Resin Trade Name (from Table 3)</u>

**NOTE:** Table 5 and “Resin Manufacturer Information” are to be completed by resin suppliers

<b>Table 5. Base Resin/Adhesive Information</b>			
Base Resin Type (e.g., PF): _____	<sup>(1)</sup> Molar Ratio of Base Resin Components: _____		
Ingredient	CAS No.	----- % by Weight Values -----	
		Minimum	Maximum
Water	7732-18-5		

<sup>(1)</sup> Complete information for typical molar ratio, if applicable (Assumes in-use molar ratios may be ± 10% of the reported ratio).

<b>RESIN MANUFACTURER INFORMATION<sup>1</sup></b>	
Company Name:	
Mailing Address:	
Contact Person (Print name and provide signature):	
Phone:	Email:
<sup>(1)</sup> <b>CONFIDENTIAL INFORMATION:</b> The base resin/adhesive information presented in Table 5 has been designated as a confidential trade secret by the company listed above, pursuant to title 17, California Code of Regulations, section 91000 et seq., and the California Public Records Act, Government Code, section 6250 et seq.	

## 5. Statement of Exclusive NAF or ULEF Resin Use

As a CARB-approved composite wood product manufacturer, we agree to exclusively manufacture the composite wood product(s) listed below with:

NAF  ULEF

resins for sale, supply, and/or use in California.

Product Name and Type
Company Name:
Product Type (e.g., MDF):
Thickness Range (inches):
Product Trade Name:
Resin System (e.g., Soy, PF, etc.):

In signing this statement affirming that we will exclusively manufacture composite wood products with the above named NAF or ULEF resins for sale, supply, and/or use in California, we assume responsibility for ensuring that those products will be made according to specifications in our application to CARB and that those products comply with applicable formaldehyde emission standards.

At which time, we decide to discontinue exclusively manufacturing specific composite wood products with:

NAF  ULEF

resins for sale, supply, and/or use in California, in accordance with the specifications in our application to CARB, we will provide written notification to CARB 30-days prior to making the change.

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name



# ATTACHMENT A

## Qualification Data

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For NAF or ULEF applications, please append the items listed below to your application.

**NAF:** As specified in section 93120.3 (c)(1) of the ATCM, data demonstrating the emissions performance of the candidate resin must be provided that includes the following:

- **Three months** of routine quality control (QC) testing data. [Note: To expedite processing your application, please provide your QC data in an Excel file on a CD or as an email attachment.]
- The correlation of the routine QC testing data to primary or secondary method testing data. Please include correlation plot with corresponding regression analysis and correlation (r). Please provide the correlation in the following format: “QC test” = “x(primary/secondary test) + y” (where x and y are constants). For compliance test results greater than 0.04 ppm, specify whether the product was included for purposes of establishing the correlation.
- The one primary or secondary method test report, on your Third Party Certifier’s letterhead, as specified in section 93120.3(c) of the ATCM.
- For products made with a NAF resin purchased from multiple suppliers, provide and identify the QC and compliance test data corresponding to each resin used.

**ULEF (reduced testing or exemption):** As specified in section 93120.3 (d)(1) of the ATCM, data demonstrating the emissions performance of the candidate resin must be provided that includes the following:

- **Six months** of routine quality control testing data. [Note: To expedite processing your application, please provide your QC data in an Excel file on a CD or as an email attachment.]
- The correlation of the routine QC testing data to primary or secondary method testing data. Please include correlation plot with corresponding regression analysis and correlation (r). Please provide the correlation in the following format: “QC test” = “x(primary/secondary test) + y” (where x and y are constants). For compliance test results greater than 0.04 ppm, specify if the product was included for purposes of establishing the correlation.
- Two quarterly primary or secondary method tests, on your Third Party Certifier’s letterhead, as specified in section 93120.3(d) of the ATCM.
- For products made with an ULEF resin purchased from multiple suppliers, provide and identify the QC and compliance test data corresponding to each resin used.

# ATTACHMENT B

## Information for Amending a CARB Approved Executive Order

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Use Attachment B to provide information and data to support an application to amend your existing Executive Order. For the types of amendments listed below, please provide the listed items. For other types of amendments, please contact CARB staff at the email address on Page 1 of the application.

- Add another resin system:
  - Provide complete information on the product type to be made
  - Complete Tables 2, 3, and 4 for the new resin system
  - Provide complete resin ingredient information – if your resin supplier deems their formulation as confidential business information, arrange to have them send the information to CARB directly
  - For NAF or ULEF Executive Orders, respectively, provide one or two primary/secondary method test reports on your TPC's letterhead
  
- Change your resin application rate:
  - Provide complete information on the product type to be made
  - Complete Table 2 for the new resin application rate
  - For NAF or ULEF Executive Orders, respectively, provide one or two primary/secondary method test reports on your TPC's letterhead
  
- Change the company name:
  - Provide documentation of the change in ownership and a certification page signed by an authorized representative from the new owner
  
- Add additional product names:
  - Provide a letter to update your statement of exclusive use
  - Provide assurance that the new product will be made in accordance with your existing Executive Order

# ATTACHMENT C

## Information for an Executive Order Renewal

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Use Attachment C to submit the information and data to support a request to renew your CARB approved Executive Order. To renew your Executive Order, please provide:

- One or two primary/secondary method test reports on your TPC's letterhead, measured during the three-month period preceding the expiration date of your Executive Order, that are no greater than 0.04 ppm, for NAF or ULEF products, respectively
- Provide copies of your resin purchases in the three-month period preceding the expiration date of your Executive Order, and the name and contact information of your resin supplier(s) that can verify that the resin was purchased by you and supplied to you
- Provide the chemical formulation of the NAF or ULEF resin that you have been using
- Provide production data collected in the three-month period preceding the expiration date of your Executive Order, demonstrating that products made during that period were manufactured according to the parameters specified in your Executive Order
- Provide a signed and completed "Statement of Exclusive NAF or ULEF Resin Use" and "Certification" page with a date corresponding to your renewal application





# Certification

Company Name: \_\_\_\_\_

I, \_\_\_\_\_, hereby certify that the information and data submitted in this application are true and as accurate as possible, to the best of my knowledge and professional expertise and experience.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title