



**United States Environmental Protection Agency**  
**Pressed Wood Manufacturing Industry Survey:**  
**Hardboard and Structural Composite Manufacturers**  
**Questionnaire**

Survey ID: \_\_\_\_\_

Please return the completed response no later than **Weekday, Month Day, Year.**

**The public reporting and recordkeeping burden for this collection of information is estimated to average 14 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed questionnaire to this address.**

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information, unless it displays a currently valid OMB control number.

# I. General Manufacturer Identification Information

Please verify that the information that we have for your company is accurate. Please **correct any errors or complete any missing information** on the lines following Questions 1 through 8 below. Please consult appropriate staff at your company as necessary to obtain the correct information.

**Check red box if response is confidential business information (CBI)**

**1. The name of your company:**

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**2. The name of your plant:**

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**3. The address of your plant (mailing address and physical address, if different):**

Physical  
Address Line 1: \_\_\_\_\_

Address Line 2: \_\_\_\_\_

City: \_\_\_\_\_ State: 

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 ZIP 

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Mailing  
Address Line 1: \_\_\_\_\_

Address Line 2: \_\_\_\_\_

City: \_\_\_\_\_ State: 

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 ZIP 

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**4. The name and address of the ultimate parent company that owns this plant:**

Parent Company: \_\_\_\_\_

Address Line 1: \_\_\_\_\_

Address Line 2: \_\_\_\_\_

City: \_\_\_\_\_ State: 

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 ZIP 

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**5. Your company's website address:**

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**6. Your contact information:**

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

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

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

E-mail: \_\_\_\_\_

**Check red box if response is confidential business information (CBI)**

**7. Size of ultimate parent company:**

a. The approximate number of employees (worldwide) of the ultimate parent company that owns this plant:

- Number:
- less than 50
  - 50-99
  - 100-249
  - 250-499
  - 500-999
  - 1,000-1,499
  - 1,500 or more

b. The approximate 2009 gross revenue (worldwide) of the ultimate parent company that owns this plant:

- Gross Revenue (\$):
- less than \$1 million
  - \$1-\$49 million
  - \$50-\$99 million
  - \$100-\$499 million
  - \$500 million or more

**8. Size of this plant:**

a. The approximate total number of employees (full time and part time) in total at this plant:

- Number:
- less than 25
  - 25-49
  - 50-99
  - 100-149
  - 150-249
  - 250-499
  - 500 or more

b. The approximate 2009 gross revenue of this plant:

- Gross Revenue (\$):
- less than \$1 million
  - \$1-\$49 million
  - \$50-\$99 million
  - \$100-\$499 million
  - \$500 million or more

## II. Primary Pressed Wood Products Manufactured

### 9. Primary pressed wood products manufactured and production volume.

*\* Check red box if response is confidential business information (CBI)*

	<b>Pressed Wood Category</b>	<b>Check if produced at your plant.</b>	<b>In the 5-year period from 2005 through 2009, what was the average annual total production? (please specify basis).</b>	<b>Provide your plant's rated maximum capacity</b>	<b>To your knowledge, are any of your products used in non-structural applications?</b>
CBI*	(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)
	<i>Example: Hardboard</i>	<input checked="" type="checkbox"/>	<i>Avg. annual production: 1 million sq. ft</i> <i>basis: 1/8"</i>	<i>Max capacity: 5 million sq. ft</i> <i>basis: 1/8"</i>	Yes
<input type="checkbox"/>	a. Glulam	<input type="checkbox"/>	Avg. annual production: _____ basis: _____	Max capacity: _____ basis: _____	
<input type="checkbox"/>	b. Hardboard	<input type="checkbox"/>	Avg. annual production: _____ basis: _____	Max capacity: _____ basis: _____	
<input type="checkbox"/>	c. I-Joists	<input type="checkbox"/>	Avg. annual production: _____ basis: _____	Max capacity: _____ basis: _____	
<input type="checkbox"/>	d. Oriented Strandboard (OSB)	<input type="checkbox"/>	Avg. annual production: _____ basis: _____	Max capacity: _____ basis: _____	
<input type="checkbox"/>	e. Softwood Plywood	<input type="checkbox"/>	Avg. annual production: _____ basis: _____	Max capacity: _____ basis: _____	
<input type="checkbox"/>	f. Structural Composite Lumber (SCL)*	<input type="checkbox"/>	Avg. annual production: _____ basis: _____	Max capacity: _____ basis: _____	
<input type="checkbox"/>	g. Other Structural Composite. Please specify:	<input type="checkbox"/>	Avg. annual production: _____ basis: _____	Max capacity: _____ basis: _____	
<p>* Includes laminated veneer lumber (LVL), laminated strand lumber (LSL), parallel strand lumber (PSL), and oriented strand lumber (OSL).</p>					

# Copy #1 of Question 10

**10. Resin Types and Certification Standards.** Please complete the following table for each pressed wood category produced at your plant. If you produce products in more than one adhesive/emissions class, have changed the adhesive/emissions classes of your products in the last five years, or plan to change the adhesive/emissions classes of your products in the next three years, please list each class in a separate row. For the purpose of this survey, adhesive/emissions class means a class of pressed wood product that differs from others based on binder/resin technology, formaldehyde emission certification standard category, and/or formaldehyde emission profile. For average and maximum emissions, calculate the average and maximum emissions over one year if possible. If the average and maximum emissions cannot be calculated over one year, report the average and maximum emissions based on available data.

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\* Check red box if response is confidential business information (CBI)

CBI *	Pressed Wood Category (select from list below) <sup>1</sup> (Col 1)	Adhesive/ Emissions Class (Col 2)	Binder/ Resin Category (Select from list below) <sup>2</sup> (Col 3)	Emission Certification Standard Category (select from list below) <sup>3</sup> (Col 4)	Indicate when Products in each Adhesive/ Emissions Class were produced and/or whether it will be produced in the future			Formaldehyde emission levels from finished boards			Share of Production Volume	
					Last 5 years? (Col 5)	This Year? (Col 6)	3 years from now? (Col 7)	Average (specify units) (Col 8)	Max (specify units) (Col 9)	Measurement method (Col 10)	This Year (%) (Col 11)	3 years from now (%) (Col 12)
					Yes	Yes	Yes	0.5 mg/100g	0.7 mg/100g	EN120 Perforator Test	0%	20%
	Example: OSB	1	PF	E1	Yes	Yes	Yes	0.5 mg/100g	0.7 mg/100g	EN120 Perforator Test	0%	20%
	Example: OSB	2	pMDI	F****	No	No	Yes	0.2 mg/L	0.3mg/L	JISA1901 Japanese Small Chamber Test	100%	80%
<input type="checkbox"/>												
<input type="checkbox"/>												
<input type="checkbox"/>												

**1. Pressed Wood Category Abbreviations:**

GL	Glulam	CNSL	Cashew Nut Shell Liquid
HB	Hardboard	MF	Melamine-formaldehyde
IJ	I-Joist	MUF	Melamine-urea-formaldehyde
OSB	Oriented strandboard	pMDI	Polymeric Diphenylmethane Diisocyanate
SWPW	Softwood plywood	PF	Phenol-formaldehyde
SCL	Structural composite lumber	PF-MDI	Phenol-formaldehyde-MDI
OTR	Other structural composites - please specify	PMUF-MDI	Phenol-melamine-urea-formaldehyde-MDI
		PUF-MDI	Phenol-urea-formaldehyde-MDI

**3. Certification Standard Categories:**

E1/E2	European Standard (specify level in table above)
F	Japanese Standard (specify **** level in table above)
HUD	HUD Standard
O	Other - please specify
None	No certification standard category was met/will be met
N/A	Not applicable

**2. Binder/Resin Categories:**

PUFT	Phenol-urea-formaldehyde
PVA	Polyvinyl Acetate
SBR	Soy-based resins
TBR	Tannin-based resins
UF	Urea-formaldehyde
O	Other - please describe
+s	addition of scavenger to resin (for example, "MF+s")
+c	addition of catalysts to resin
+a	addition of other additives to resin

### III. Recent or Planned Changes Resulting in Lower Formaldehyde Emissions

Check red box if response is confidential business information (CBI)

11. Have you made any recent changes (since 2005) to production processes or raw materials that resulted in lower product formaldehyde emissions?

- Yes, for Glulam:
  - The primary purpose for the change was to lower product formaldehyde emissions.
  - The change was made for other reasons.
- Yes, for Hardboard:
  - The primary purpose for the change was to lower product formaldehyde emissions.
  - The change was made for other reasons.
- Yes, for I-joists:
  - The primary purpose for the change was to lower product formaldehyde emissions.
  - The change was made for other reasons.
- Yes, for Oriented Strandboard:
  - The primary purpose for the change was to lower product formaldehyde emissions.
  - The change was made for other reasons.
- Yes, for Softwood Plywood:
  - The primary purpose for the change was to lower product formaldehyde emissions.
  - The change was made for other reasons.
- Yes, for Structural Composite Lumber:
  - The primary purpose for the change was to lower product formaldehyde emissions.
  - The change was made for other reasons.
- No changes were made since 2005 that resulted in lower product formaldehyde emissions.

12. Do you plan to make any changes in the next three years to production processes or raw materials expected to result in lower product formaldehyde emissions?

- Yes, for Glulam:
  - The primary purpose for the change is to lower product formaldehyde emissions.
  - The change will be made for other reasons.
- Yes, for Hardboard:
  - The primary purpose for the change is to lower product formaldehyde emissions.
  - The change will be made for other reasons.
- Yes, for I-joists:
  - The primary purpose for the change is to lower product formaldehyde emissions.
  - The change will be made for other reasons.
- Yes, for Oriented Strandboard:
  - The primary purpose for the change is to lower product formaldehyde emissions.
  - The change will be made for other reasons.
- Yes, for Softwood Plywood:
  - The primary purpose for the change is to lower product formaldehyde emissions.
  - The change will be made for other reasons.
- Yes, for Structural Composite Lumber:
  - The primary purpose for the change is to lower product formaldehyde emissions.
  - The change will be made for other reasons.
- No changes are planned in the next three years that are expected to result in lower product formaldehyde emissions.

# IV. Issues That May Affect Ability To Reduce Formaldehyde Emissions or Switch to a No Added Formaldehyde Production Technology

Check red box if response is confidential business information (CBI)

**13. Issues That May Affect Ability To Reduce Formaldehyde Emissions.** If you currently use a resin with added formaldehyde, please explain the issues you would need to address in order to *reduce formaldehyde emissions* (without eliminating added formaldehyde). Complete Question 13 for each *pressed wood category* manufactured at your plant that has added formaldehyde. If your responses would differ for different products within a pressed wood category, then report them separately.

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- a. Please specify the Primary Pressed Wood Category:
  - Glulam
  - Hardboard
  - I-Joists
  - Oriented Strandboard
  - Softwood Plywood
  - Structural Composite Lumber
  - Other Structural Composites. Please specify: \_\_\_\_\_

- b. Please explain what changes would be necessary to raw materials used and production technology in order to reduce the formaldehyde emissions from your products. If possible, please provide information about the costs that would be associated with these changes.

Expand Answer



# Copy #1 of Question 14

Check red box if response is confidential business information (CBI)

**14. Issues that May Affect Ability To Switch to NAF Production Technology.** If you currently use a resin with added formaldehyde, please explain the issues you would need to address in order to use a *no-added formaldehyde (NAF)* resin technology. Complete Question 14 for each *pressed wood category* manufactured at your plant that has added formaldehyde. If your responses would differ for different products within a pressed wood category, then report them separately.

Click the button below to have the electronic version of this form automatically generate an additional copy of Question 14. If you are using the paper version of this form, please use the extra copies provided and make additional copies as necessary.

Add Copy

- a. Please specify the Primary Pressed Wood Category:
  - Glulam
  - Hardboard
  - I-Joists
  - Oriented Strandboard
  - Softwood Plywood
  - Structural Composite Lumber
  - Other Structural Composites. Please specify: \_\_\_\_\_
  
- b. Please explain what changes would be necessary to raw materials used and production technology in order to adopt a no-added formaldehyde production technology. If possible, please provide information about the costs that would be associated with these changes.

Expand Answer

## **THE END**

Thank you. Please see the sheet labeled *Instructions for Returning the Completed Questionnaire to EPA* for directions on how to return this questionnaire to EPA.