

Wood Building Products (Surface Coating) NESHAP



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Wood Building Products (Definition)

- Any finished or laminated wood product that is used in the construction, either interior or exterior, of any residential, commercial, or institutional building.
(Does not include wood substrate or wood furniture.)

Finished (Wood) Product

- Any wood building product to which a protective, decorative, or functional layer has been applied. Materials used include, but are not limited to, paints, stains, sealers, topcoats, basecoats, primers, enamels, inks, adhesives, and temporary protective coatings.

Laminated (Wood) Product

- Any wood building product which a protective, decorative, or functional layer has been bonded with an adhesive. Products that are produced by bonding layers to the substrate as a part of the substrate manufacturing process are not considered laminated products under this regulation.

Wood Building Products NESHAP Project Status

- Initial MACT Floor Analysis
- Review with Industry Stakeholders
- Develop Final Floor(s)
- Determine (Cost) Impacts
- Begin Drafting Proposal Preamble/
Regulation

Wood Building Products

NESHAP Issues

- MACT is driven by “compliant coatings”
 - low-VOC and low/no-HAP
- Limited amount of data
- Three delisting petitions - Notice of Completeness
 - EGBE
 - MEK
 - Methanol
- Cure HAPs issue - modify Test Method 311
- Number of small businesses

Industry Segments: Wood Building Products ICR

Segment	Description	Products
A	Premanufactured home manufacturers	Prefab homes Mobile/modular homes
B	Panel & reconstituted wood products manufacturers	Sheet siding, lap siding Particleboard; fiberboard; waferboard; Pressboard; hardboard; panelboard; Plywood/veneer panels Laminated wood products
C	Window & door manufacturers	Windows Interior & exterior doors Fiber doorskins and doorskins
D	Flooring, architectural/specialty millwork & miscellaneous	Flooring Mouldings Specialty millwork Casework
E	Small Businesses	Mix from A–D (above)

Wood Building Products - Database

- 45 ICRs mailed out (5 industry segments)
- 126 facilities (32 companies) responded
- 50 ICR responses not relevant/pertinent
- 76 facilities with “complete” information
 - 53 major and synthetic minor sources
 - 14 area/minor sources

Wood Building Products - Database Summary

- 53 facilities to be used in determining MACT for existing and new sources
 - Segment A, 14 facilities
 - Segment B, 20 facilities
 - Segment C, 14 facilities
 - Segment D, 5 facilities

Wood Building Products Database Summary

Segment	Description	# Facilities	HAP Emissions (Tons)
A	Pre-manufactured Homes	14	47
B	Panels/Siding	20	682
C	Windows/Doors	14	218
D	Flooring/Misc.	5	40

Primary HAP Emitted by the Wood Building Products Industry (from TRI data)

Pollutant	Tons Emitted	% of Total
Methanol	7069	49%
Formaldehyde	1881	13%
Toluene	1261	9%
Xylene	906	6%
Acetaldehyde	853	6%
Methyl Ethyl Ketone	635	4%
Hydrochloric Acid	424	3%
Phenol	301	2%
Chloroform	227	2%
MIBK	163	1%
All other HAP	591	4%
TOTAL	14311	

Primary HAP Emitted by Surface Coating of Wood Building Products (from ICR's)

Pollutant	Tons Emitted	% of Total
Xylene	572	58%
Ethyl Benzene	97	10%
EGBE	58	6%
Toluene	32	3%
MIBK	39	4%
Styrene	38	4%
Ethylene glycol	38	4%
Methanol	28	3%
2-Propoxyethanol	26	3%
DGBE	19	2%
All Other HAP	39	4%
TOTAL	987	

MACT Floor Options

- Individual coating (category) limits
- Industry segment limits
 - By coating category
 - Overall facility
- Combined segments/coating category limits
 - Coatings
 - Thinning solvents
 - Cleaning solvents
- Overall normalized facility emission limit

MACT Floor Approach

- Evaluated several different floor options
- Selected MACT option utilizing overall facility emission limit to provide flexibility
- Includes coatings, thinning solvents, cleaning solvents, and cure volatiles (HAPs)
- Does not include storage tanks, mixing, wastewater, or handling/transfer emissions