

PCWP MACT - Overview

Air Toxics Workshop
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Presentation Overview

- Description of Affected Source & Industry
- Typical Process Units and Whether Controls Required
- Control Requirements
- Emissions Averaging
- Production-based Compliance Options
- Downtime Allowance
- Dryers - Important Equipment Distinctions
- Low-risk Subcategory
- Important Dates
- Effluent Guidelines

Industry Overview

- Products -- plywood, particleboard, oriented strandboard, and other products manufactured by bonding wood material or agricultural fiber with resin to form a structural panel or engineered wood products
- Number of major facilities -- 223
 - 46 have all necessary controls
 - 11 have no equipment subject to controls or MRR
- Most emissions from presses and dryers
- HAP of concern for MACT – acetaldehyde, acrolein, formaldehyde, methanol, phenol, propionaldehyde

PCWP Affected Source

- Collection of dryers, presses, refiners, blenders, formers, board coolers, and other equipment used to make PCWP
- Lumber kilns located anywhere are also part of the PCWP affected source (note: probably not in 112(j) part 1 notifications since MACT proposed after part 1 due)

Definition of Affected Source

- Affected source means the collection of dryers, refiners, blenders, formers, presses, board coolers, and other process units associated with the manufacturing of plywood and composite wood products. The affected source includes, but is not limited to, green end operations, refining, drying operations, resin preparation, blending and forming operations, pressing and board cooling operations, and miscellaneous finishing operations (such as sanding, sawing, patching, edge sealing, and other finishing operations not subject to other NESHAP). The affected source also includes onsite storage of raw materials used in the manufacture of plywood and/or composite wood products, such as resins; onsite wastewater treatment operations specifically associated with plywood and composite wood products manufacturing; and miscellaneous coating operations (defined elsewhere in this section). The affected source includes lumber kilns at PCWP manufacturing facilities and at any other kind of facility.

Definition of PCWP

- Plywood and composite wood products (PCWP) manufacturing facility means a facility that manufactures plywood and/or composite wood products by bonding wood material (fibers, particles, strands, veneers, etc.) or agricultural fiber, generally with resin under heat and pressure, to form a structural panel or engineered wood product. Plywood and composite wood products manufacturing facilities also include facilities that manufacture dry veneer and lumber kilns located at any facility. Plywood and composite wood products include, but are not limited to, plywood, veneer, particleboard, oriented strandboard, hardboard, fiberboard, medium density fiberboard, laminated strand lumber, laminated veneer lumber, wood I-joists, kiln-dried lumber, and glue-laminated beams.

Process Units Requiring Controls

- Softwood veneer dryers
- Primary and secondary tube dryers
- Rotary and conveyor strand dryers
- Green rotary dryers
- Hardboard ovens
- Reconstituted wood product presses
- Pressurized refiners

Process Units Requiring Controls Only at New Sources

- Press predryers
- Fiberboard mat dryers
- Board coolers

Process Units Not Requiring Controls

- Dry rotary dryers, veneer redryers, and hardwood veneer dryers*
- Softwood plywood presses**and hardwood plywood presses
- Engineered wood products presses
- Humidifiers
- Atmospheric refiners
- Formers**
- Blenders**
- Rotary agricultural fiber dryers
- Agricultural fiber board presses
- Sanders**, saws**, fiber washers**, chippers, log vats, storage tanks, wastewater operations, group 2 miscellaneous coating operations, and stand-alone digesters**
- Lumber kilns
- *Some monitoring required, e.g., wood mix, moisture content
- **Most likely credit-generating process units for emissions averaging

Compliance Options

- Add-on controls
 - Capture and control greater than or equal to 90% of THC, methanol, or formaldehyde
 - Outlet concentration options:
 - 20 ppmvd for THC
 - 1 ppmvd for methanol or formaldehyde (and at least 10 ppmvd of the same HAP at the inlet)
- Emissions averaging
- Production-based compliance options (PBCO)

Emissions Averaging

- Simple emissions average provisions
- No credit > 90%
- Only process units with add-on controls can generate credits, i.e., can't use to meet PBCO
- Proposed that emissions average based on six HAP
 - Predominant HAP varies with process unit and one of six we specified will always be one of the predominant
 - Looking at all six considers 96% of emissions by mass
- No hazard or risk assessment required

PBCO

- Process unit emission rate limit for 11 types of process units
- Developed option to encourage pollution prevention and innovation
- Applies to uncontrolled emissions
- Expressed in lb per unit production, e.g., lb/MSF ½" and lb/ODT

Downtime Allowance

- Rule includes downtime allowance for control devices, i.e., process can continue to operate while control device is off-line
- Facility must justify need for allowance
- Downtime allowance (§63.2251), based on annual operating uptime, is:
 - 3%, or less, for green rotary dryers, tube dryers, rotary strand dryers, & pressurized refiners
 - 0.5%, or less, for softwood veneer dryers, reconstituted wood product presses and board coolers, hardboard ovens, press predryers, conveyor strand dryers, & fiberboard mat dryers

Low-Emitting Dryers

- Some dryers emit less HAP than other dryers
 - Drying previously dried wood, or
 - Drying mostly hardwood
- Differs from other dryers only in operations
- No controls required, but must monitor
 - Dry rotary dryers (§63.2263) – temperature & moisture
 - Veneer redryers (§63.2266) – temperature & moisture
 - Hardwood veneer dryers (§63.2264) – percent softwood
 - Softwood veneer dryers (§63.2265) – minimize fugitive emissions

Low-risk Subcategory

- Requirements for low-risk in appendix B to rule
- Eight facilities in low-risk subcategory now
- Other facilities will apply to become part of the low-risk subcategory
- Facilities may demonstrate they are low risk using the look-up tables or by conducting a site-specific risk demonstration
- Risk based on 13 HAP of concern
- OAQPS will approve low-risk demonstrations
- Facilities in low-risk subcategory are no longer part of source category & MACT requirements do not apply
- Title V concerns
 - Must incorporate parameters to ensure facilities remain low risk
 - Must have requirements in permit to be part of low-risk subcategory

Important Dates

- Effective date – 60 days after final rule published
- Litigation deadline – 60 days after final rule published
- Compliance date – 3 years from effective date (i.e., 3 years + 60 days from publication date)

Effluent Guidelines

- Amended part 429
- Changed definition of “process wastewater”
- Prior to change, zero discharge limit
- Now, can discharge process wastewater from control devices used to comply with PCWP MACT (does not include facilities in low-risk subcategory)
