

Plywood and Composite Wood Products (PCWP) Information Collection Request (ICR)

Spreadsheet Overview: HAP Emissions Tab

November 2017

Optional Provisional Calculation Tool

- ▶ Optional emission-factor calculation resource you may use in the absence of more-representative data
- ▶ Available in the right-hand columns of the HAP Emissions tab
- ▶ Developed to reduce burden of the ICR for facilities that have little data and do not maintain a HAP emissions inventory
- ▶ See section D4b3 of the ICR Instructions

Use of the Provisional Calculations

- ▶ You may use for pollutants where you lack data.
- ▶ The provisional calculations should not be used when more-representative, or site-specific data are available.
- ▶ You may mix and match calculation approaches for a given emission release point. For example:

Emission Release Point ID	Pollutant	Method for Determining Emissions
RTO1 stack	Formaldehyde	02 - Source Test
RTO1 stack	Methanol	07 - Emission Factor
RTO1 stack	Propionaldehyde	99 - PCWP Provisional Calculation

How the Provisional Calculations Work

- ▶ The provisional calculations:
 - ▶ Look up publicly-available emission factors based on the SCC associated with each emission release point ID
 - ▶ Use formulas to pull in process throughput, operating hours, and fuel use entered elsewhere in the PCWP spreadsheet
 - ▶ Accept an apportionment fraction to parse emission-factor estimates across multiple release points from the same process unit
 - ▶ Account for HAP reductions from control devices
- ▶ Most of the provisional emission factors are from AP-42
 - ▶ Pollutants with all below detection limit (BDL) data excluded
- ▶ Facilities can enter a different emission factor, if desired

Why AP-42?

- ▶ Cons: PCWP chapters were last updated in 2002
 - ▶ Predates 2007 MACT compliance
 - ▶ Predates use of low-formaldehyde resins
- ▶ Pros:
 - ▶ There is no other more-comprehensive, publicly-available information source.
 - ▶ AP-42 is an EPA document that underwent a stakeholder review process prior to finalization.
 - ▶ The tradeoffs for using AP-42 are a reasonable compromise for reducing the burden for facilities with no current HAP inventory and no other source of information to use for estimating emissions.

Respondents can use different emission factors in the provisional calculations.

Appendix 8: Industry SCC Crosswalk

PCWP SCCs by Products and Process Unit Type				Provisional calculation information			
PCWP ¹	SCC	SCC Level Four	ICR Process Unit Type	Related AP-42 EF to use in absence of more representative data	EF source	EF units	Pollutants with Provisional Calculations Available ²
PB	30700635	Dry Rotary Dryer: Indirect-heated: <600F Inlet air, <30%MC: Softwood	Dry rotary dryer	Particleboard, rotary, indirect heated with auxiliary natural gas, softwood	AP-42, Ch 10.6.2	lb/ODT	Formaldehyde, Methanol
PB	30700636	Dry Rotary Dryer: Indirect-heated: <600F Inlet air, <30%MC: Hardwood	Dry rotary dryer	Particleboard, rotary, indirect heated with auxiliary natural gas, softwood	AP-42, Ch 10.6.2	lb/ODT	Formaldehyde, Methanol
PB	30700637	Dry Rotary Dryer: Indirect-heated: <600F Inlet air, <30%MC: Mixed Softwood/Hardwood	Dry rotary dryer	Particleboard, rotary, indirect heated with auxiliary natural gas, softwood	AP-42, Ch 10.6.2	lb/ODT	Formaldehyde, Methanol
PB	30700641	Former Operations: Urea Formaldehyde Resin	Former	MDF, former without blowline blend, UF resin (includes blender emissions)	AP-42, Ch 10.6.3	lb/ODT	Formaldehyde, Methanol
PB	30700642	Former Operations: Non-Urea Formaldehyde Resin	Former	MDF, former without blowline blend, UF resin (includes blender emissions)	AP-42, Ch 10.6.3	lb/ODT	Formaldehyde, Methanol
PB	30700648	Blender: Urea Formaldehyde Resin	Blender	MDF paddle blender, UF resin	AP-42, Ch 10.6.3	lb/ODT	Formaldehyde, Methanol
PB	30700649	Blender: Non-Urea Formaldehyde Resin	Blender	MDF paddle blender, UF resin	AP-42, Ch 10.6.3	lb/ODT	Formaldehyde, Methanol
PB	30700651	Reconstituted Wood Products Press: Batch: Urea Formaldehyde Resin	Reconstituted wood product press	Particleboard, press, UF resin	AP-42, Ch 10.6.2	lb/MSF 3/4	Acetaldehyde, Acrolein, Formaldehyde, Methanol, Phenol, Benzene, MIBK
PB	30700652	Reconstituted Wood Products Press: Continuous: Urea Formaldehyde Resin	Reconstituted wood product press	Particleboard, press, UF resin	AP-42, Ch 10.6.2	lb/MSF 3/4	Acetaldehyde, Acrolein, Formaldehyde, Methanol, Phenol, Benzene, MIBK

Most Closely Related Emission Factor

- ▶ Column Q is the most closely related available organic HAP emission factor paired with each SCC.
 - ▶ Not the same as the SCC description
 - ▶ Available AP-42 emission factors were paired with SCCs using a conservative substitution approach for emission factors not directly matching SCCs.
 - ▶ The reference is included in column R.
- ▶ Column Q is supplied to aid in your evaluation of emission factor representativeness.

P	Q	R
SCC	Most Closely Related Available Emission Factor Description for Organic HAP	Organic HAP Emission Factor Source
30701009	OSB, rotary, direct wood-fired, softwood	AP-42, Ch 10.6.1
30701009	OSB, rotary, direct wood-fired, softwood	AP-42, Ch 10.6.1

Documentation

- ▶ *“Development of a Provisional Emissions Calculations Tool for Inclusion in the Final PCWP ICR” – Sept 2017*
- ▶ PCWP SCCs were updated in 2015
 - ▶ Some of the new SCCs for processes that do not emit HAP were excluded from the ICR (e.g., green-end processes)
 - ▶ 365 SCCs are included for selection in the ICR
 - ▶ No available emission factors for some SCCs
- ▶ List of HAPs included in the ICR – Memo Appendix C
 - ▶ Based on available emission factors with HAP detects, and HAP in the National Emissions Inventory for the PCWP category
 - ▶ Includes HAP metals – possible for direct-fired dryers
 - Provisional calculations include HAP metals for direct-wood fired dryer SCCs

No Emission Factor Scenarios

- ▶ Within the Provisional Calculations:
 - ▶ No EF for SCC: Displays in column R if no HAP emission factors were available for an SCC (e.g., other not classified, tanks, miscellaneous coating operations)
 - ▶ No EF for pollutant: Displays in column AC if no HAP emission factor is available for a given pollutant, or if the available emission factor as based on all-BDL data

Questions?

- ▶ PCWP Help Desk:

- ▶ Email: pcwpicr@epa.gov

- ▶ Phone: 866-522-7297 (toll free)

- ▶ Webpage

- ▶ The ICR survey, supporting documents, and frequently asked questions (FAQs) are available at:

- <https://www.epa.gov/stationary-sources-air-pollution/information-collection-plywood-and-composite-wood-products-industry>