

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

Part II: Completing the ICR for Kiln-Dried Lumber Producers

October, 2017

Target Audience for this Webinar

- ▶ ICR respondents that:
 1. Are major sources of HAP emissions,
 2. Operate lumber kilns, and
 3. Do not produce other plywood and composite wood products (PCWP).

- ▶ Lumber facilities meeting these criteria are asked to complete the ICR.

Getting Started

Go to website 

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

- ▶ Review the ICR Instructions Document
- ▶ There are several items to submit – summarized in Appendix 5 of the instructions
- ▶ Page through the PCWP_survey.xlsx spreadsheet
- ▶ Instructions Table 1 lists the spreadsheet tabs lumber facilities are asked to complete.
 - ▶ Only lumber kilns are required to be included in the spreadsheet
 - ▶ Do not include other process units (sanders, saws, boilers, etc.)

Appendix 5 Checklist for Facilities with Lumber Kilns

- ▶ An annotated excerpt from the Appendix 5 checklist for lumber facilities is below:

Non-CBI materials:

- PCWP_survey.xlsx ← completed for lumber kilns only
 - Electronic copy of the facility operating permit in searchable format
 - Process flow diagram(s) ← can be limited to the lumber drying portion of the process (or use release point map)
 - Emissions release point map ← showing whole facility, but only lumber kiln emission points need to be labeled
 - Copy of lumber dry kiln schedules used OR reference the schedule followed in the USDA Forest Products Lab Dry Kiln Operators Manual (Agriculture Handbook # 188). For kilns with multiple kiln schedules, reference each separately. (Requested in the *LKiln* tab) ← spreadsheet asks for copies or reference of 3 to 5 of the most frequently used schedules
 - Electronic, searchable copies of previous air emission test reports requested in Section D4a and **Appendix 3** of these instructions. ← for lumber kilns only, if emissions testing for organic HAP or total hydrocarbon has been conducted, or if PM testing has been conducted for direct-fired kilns
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Base Year for Information Submitted

- ▶ Use 2016 as the base year for data
 - ▶ Exception: If 2016 is not representative due to a permitted project, you may provide post-project projections of equipment, production, and emissions.
 - Note alternative basis in “comments” column
 - Use consistent basis throughout spreadsheet
- ▶ Confidential business information can be marked and safeguarded following the instructions in Section C2.

Permit Copy and Process Flow Diagrams

- ▶ A copy of the facility's air operating permit, and flow diagrams of the lumber drying area of the process will help EPA answer questions to avoid needing to follow-up with the facility
- ▶ Permit: preferably electronic and searchable
- ▶ Flow diagrams:
 - ▶ Can be existing diagrams or hand drawn.
 - ▶ The emission release point map can suffice as the flow diagram for uncontrolled kilns



Emission Release Point Map

- ▶ Show the whole facility.
- ▶ Marking the fence line is optional.
- ▶ Only lumber kiln emission points need to be labeled.
- ▶ Any mapping software or GPS may be used
 - ▶ Set to provide longitude and latitude coordinates in decimal degrees (not degrees, minutes, seconds), with 6 digits to the right of the decimal point. Example:
 - Longitude: -123.123456
 - Latitude: 45.123456
 - ▶ Coordinates are key input parameters for risk modeling

Spreadsheet Tabs to Complete

- ▶ One facility per PCWP_survey.xlsx spreadsheet
- ▶ Per ICR Instructions Table 1, the spreadsheet tabs to complete for lumber kilns are:
 - Mill
 - Prod
 - EquipDetail
 - ReleasePt
 - Permit
 - LKiln
 - DFDryerFuel (for direct-fired kilns)
 - APCD (if applicable)
 - EmTest (if applicable)
 - HAP Emissions
 - Certification
- ▶ Work from left to right: Mill → Certification

Identifying Emission Release Points

- ▶ List each lumber kiln in the EquipDetail tab and identify the Emission Release Point ID(s) associated with the lumber kiln
- ▶ Provide detailed emissions release parameters and coordinates in the ReleasePt tab
- ▶ The release parameters you provide depend on the Emission Release Point Type you choose in the ReleasePt tab. Release Point Types include:

Stack Releases

02 – Vertical

03 – Horizontal

04 - Goose Neck

05 - Vertical with Rain Cap

06 - Downward-facing Vent

Fugitive Releases

08 - Fugitive Vent

09 - Fugitive Two-dimensional

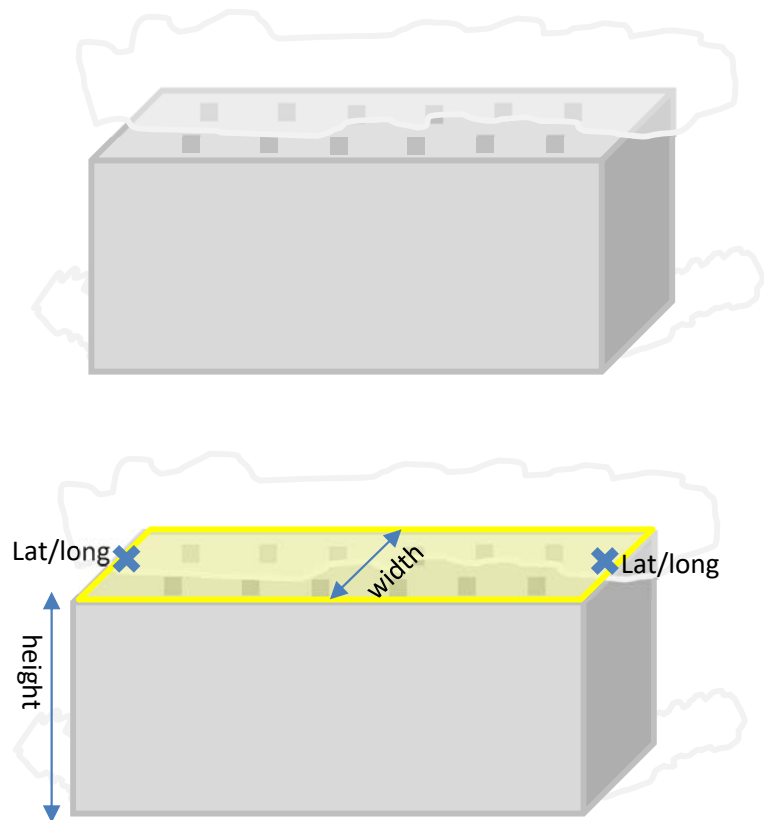
10 - Fugitive Three-dimensional

Table 5 of the ICR Instructions lists parameters to be specified for each release point type.

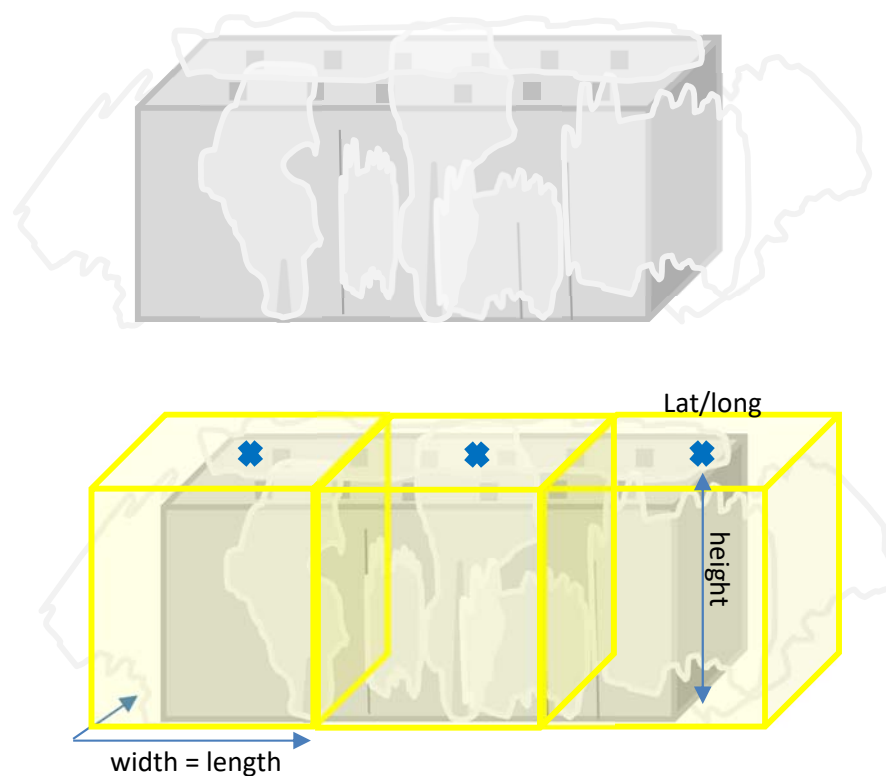
Batch Kiln Fugitive Emissions

Use engineering judgement based on presence of kiln fugitive emissions when selecting the emission release point type in the ReleasePt tab.

Most batch kilns with minimal fugitive emissions at ground level can be modeled as “fugitive two dimensional.”



Extremely leaky kilns can be modeled as multiple “fugitive three dimensional” prisms:



Example: Batch Kilns

- ▶ One release point “K1 vents”
- ▶ Emission release point type = fugitive two dimensional
 - ▶ One release point “K1 vents” with lat/long coordinate pairs identified at each end
 - ▶ Fugitive width = kiln width
 - ▶ Release height = height of kiln roof vents



Fugitive 2D release point types are identified with two sets of lat/long coordinates (yellow pins)

Release point =
K1 vents

Fugitive width = 20 ft

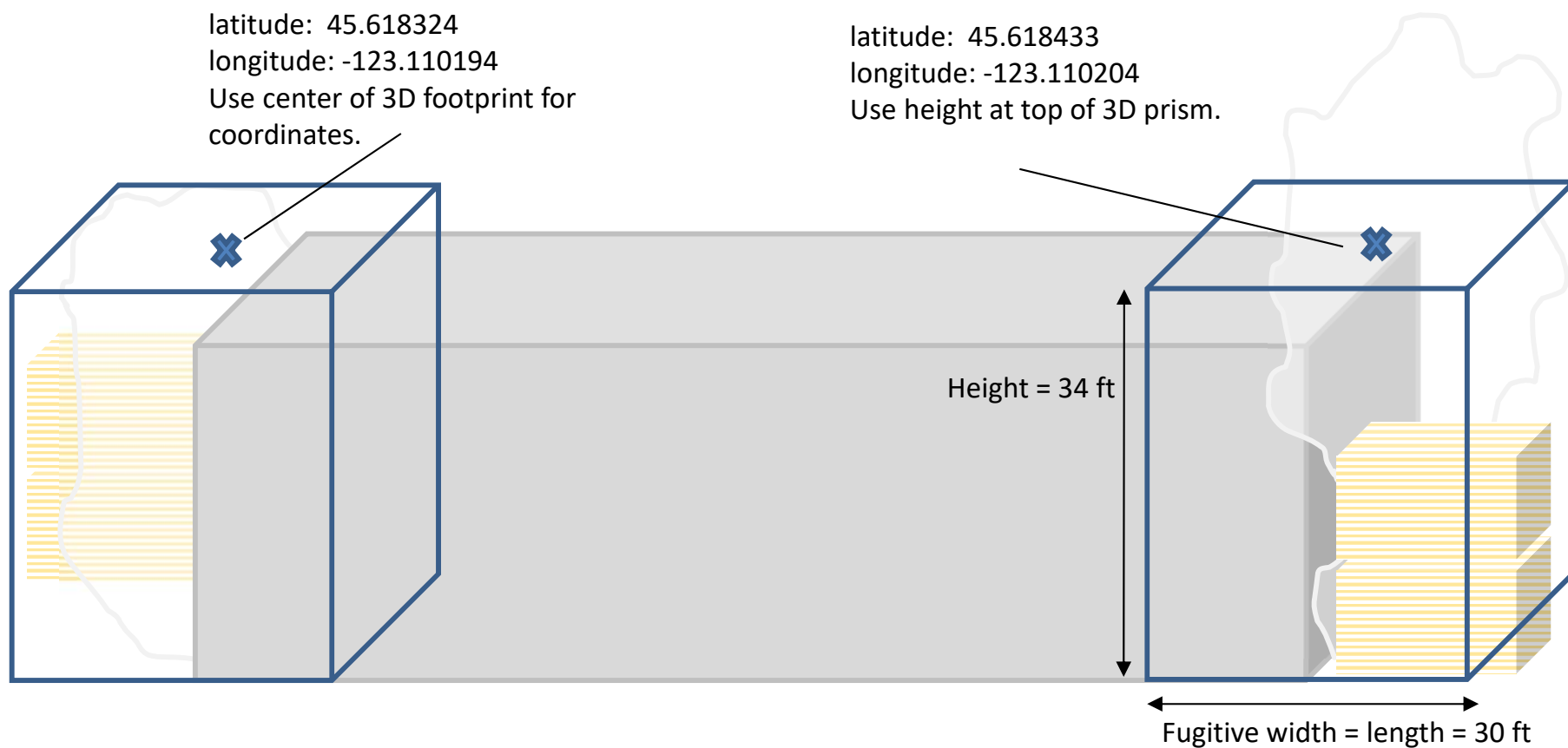
Example: Continuous Dry Kilns

- ▶ Simplistic sketch showing emissions at ends

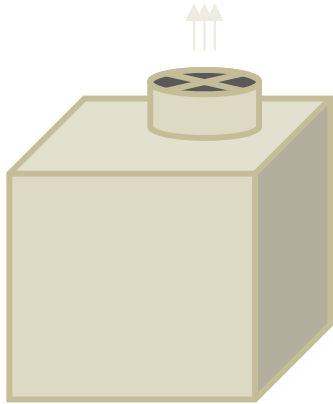


Example: Continuous Dry Kilns

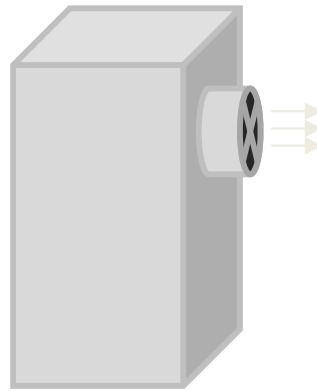
- ▶ Fugitive 3-dimensional release points specified as rectangular prisms



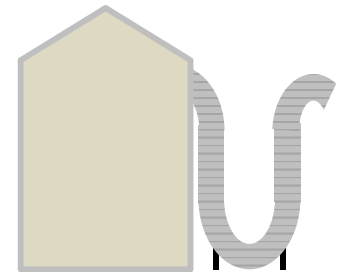
Other Release Type Examples



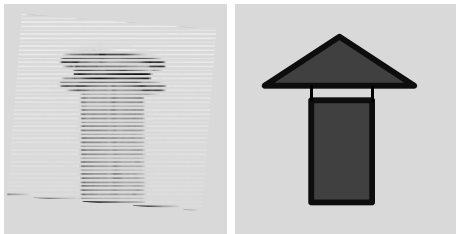
02 – Vertical



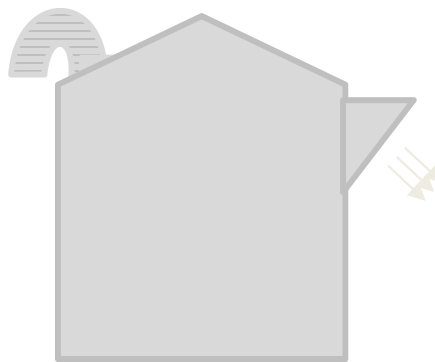
03 – Horizontal



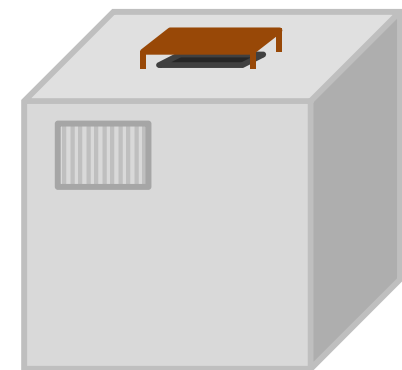
04 – Goose neck



05 – Vertical rain cap



06 - Downward-facing vent



08 – Fugitive vent

Lumber Kiln Source Classification Codes (SCCs)

- ▶ Lumber kilns SCCs were revised to distinguish between firing method and wood type
- ▶ Emission factors are built into the spreadsheet provisional calculations for facilities that do not have a more-representative means of estimating emissions

SCC	Description	Provisional calculation emission factors that may be used in the absence of more representative data, lb/MBF					
		Acetaldehyde	Acrolein	Formaldehyde	Methanol	Phenol	Propion-aldehyde
30700841	Lumber Kiln: Indirect-heated: Softwood: Pine Species						
30700842	Lumber Kiln: Indirect-heated: Softwood: Non-Pine Species						
30700843	Lumber Kiln: Indirect-heated: Hardwood	0.04	0.004	0.016	0.18	0.01	0.004
30700844	Lumber Kiln: Direct-fired: Softwood: Pine Species						
30700845	Lumber Kiln: Direct-fired: Softwood: Non-Pine Species						
30700846	Lumber Kiln: Direct-fired: Hardwood	0.04	0.004	0.065	0.018	0.01	0.004

lb/MBF = pounds per thousand board feet

Submitting Your ICR Response

- ▶ Submit non-confidential responses by either:
 - ▶ Uploading the response to EPA's CEDRI (see Appendix 6), or
 - ▶ Saving the response files on a disk (CD or flash drive) and mailing them to John Bradfield (address specified in section C1).
- ▶ There are different procedures for submitting data the facility considers confidential business information (CBI).
 - ▶ See section B and C and Appendix 5 of the instructions for details on submitting CBI.
- ▶ Responses are due February 9, 2018

Questions?

- ▶ Help Desk:

- ▶ pcwpicr@epa.gov

- ▶ 866-522-7297 (toll free)

- ▶ Webpage:

The ICR survey, supporting documents, and frequently asked questions (FAQs) are available at: <https://epa.gov/stationary-sources-air-pollution/information-collection-plywood-and-composite-wood-products-industry>