

Wood Products

Wood processing involves the conversion of trees into useful consumer products and building materials such as paper, charcoal, treated and untreated lumber, plywood, particle board, wafer board, and medium density fiber board.

Plywood is a building material consisting of veneers (thin wood layers or plies) bonded with an adhesive. There are two types of plywood: softwood plywood and hardwood plywood. Softwoods generally correspond to coniferous species. The most commonly used softwoods for manufacturing plywood are firs and pines. Hardwoods generally correspond to deciduous species. For hardwood plywood, commonly used wood species include oak, poplar, maple, cherry, and larch.

The manufacture of softwood or hardwood plywood consists of nine main processes: log storage, log debarking and bucking, heating the logs, peeling the logs into veneers, drying the veneers, gluing the veneers together, pressing the veneers in a hot press, plywood cutting, and other finishing processes such as sanding.



Engineered wood products are made from lumber, veneers, strands of wood, or from other small wood elements that are bound together with structural resins to form lumber-like structural products. They are designed for use in the same structural applications as sawn lumber (e.g., girders, beams, headers, joists, studs, and columns). These products allow production of large-lumber substitutes from small lower-grade logs.

Laminated veneer lumber (LVL) consists of layers of wood veneers laminated together with the grain of each veneer aligned primarily along the length of the finished product. The start of the LVL manufacturing process depends on how the plant obtains veneers. Plants either peel and dry veneers onsite, purchase green veneers and dry them onsite, or purchase pre-dried veneers.

If the plant peels and dries veneer onsite, the first steps in the process are log debarking, cutting, steaming, and veneer cutting. If the plant purchases green veneers, the LVL manufacturing process begins with veneer drying. If the plant purchases pre-dried veneer, grading is the first step in the LVL process.



Emissions of Concern

The major air pollutants of concern are particulate and volatile organic compounds (VOC). There also may be speciated organic compounds that are toxic or hazardous.



COMPLIANCE ASSISTANCE PROGRAM

Emission Controls

Emission controls can include a wide variety of capture and control for both particulate and VOC for point sources and operation and maintenance practices for fugitive sources.

New Source Review (NSR) & Fees

YRCAA requires that a NSR permit application be submitted and approved prior to the construction, installation, establishment, replacement or modification of air contaminant sources, emissions units or air pollution control equipment in YRCAA jurisdiction. This includes equipment associated with stationary or portable devices or any part of such a device that emits or has the potential to emit any air contaminant, including Wood Products Facilities. There is a NSR permit application fee, and an Order of Approval fee, based on the staff time to conduct the review and draft the Order of Approval.

Annual Registration & Fees

Sources of air contaminants, including Wood Products Facilities, must register annually with YRCAA and pay a fee. YRCAA's Board of Directors reviews fees annually. As a part of the registration program, businesses are required to complete and submit a registration form annually. The annual registration program enables YRCAA to classify sources and maintain an inventory of air contaminants. Information is also used to evaluate air pollution control strategies to attain and maintain National Ambient Air Quality Standards.

Inspections

Regular inspections of registered sources are conducted to verify compliance with air pollution regulations. When inspecting Wood Products Facilities, the compliance team will:

- review records;
- determine if any changes have been made to processes, equipment, materials or fuels;
- observe operation and maintenance activities;
- determine if any violations of rules, permits or orders exist; and
- determine if any corrective actions are needed to avoid enforcement.

If you have already installed a Wood Products Facility, have installed or modified a process or any equipment within a Wood Products Facility, or are planning to in the future, please contact YRCAA. Our staff is available to assist you with the permit and registration process.

YRCAA Rules

[YRCAA Regulation 1, Subsection 4.01](#)

State Rules

[WAC 173-400](#) – General Regulations for Air pollution Sources

[WAC 173-460](#) – Controls for New Sources of Toxic Air Pollutants– Controls for New Sources of Toxic Air Pollutants

Federal Rules

EPA has rules for control of hazardous air pollutants (HAPs) called maximum achievable control technology (MACT) standards. To determine if your facility, equipment or operation is subject to a MACT standard see the following links:

<http://www.epa.gov/airtoxics/mactfnlalph.html>

<http://www.epa.gov/ttn/atw/area/compilation.html>