

## Managing Treated Wood Waste

Treated wood products, like pressure treated wood, utility poles, railroad ties, and other outdoor lumber, are preserved with chemicals that protect against decay and insects but contain hazardous constituents that can pose environmental and health risks. When these materials are reused or disposed of improperly, they can release toxic substances into the environment or become subject to hazardous waste regulations if the concentration of toxins meets certain thresholds.

### Types of Treated Wood

Treated wood falls into three main categories based on preservatives used:

- Water-borne preservatives: Common in outdoor residential and commercial structures (e.g., decks, playgrounds), containing chemicals like Chromated Copper Arsenate (CCA), Ammoniacal Copper Quat (ACQ), and Ammoniacal Copper Zinc Arsenate (ACZA).
- Creosote-treated wood: Typically found in railroad ties and bridge timbers.
- Oil-borne preservatives: Includes pentachlorophenol (“penta”) for utility poles, containing hazardous chemicals.

Recent guidance on identifying treated wood highlights several methods, including visual cues, end tags, and chemical tests. Treated wood may exhibit distinct color changes: Chromated Copper Arsenate (CCA) often appears greenish but may fade to silver, complicating identification. Other preservative treatments, like alkaline copper quaternary (ACQ), also show a slight green tint, while borate-treated wood has a bluish hue and is primarily used indoors due to low toxicity.

A helpful method is to look for end tags or stamps, which indicate preservative type, retention levels, and recommended uses. For example, categories like UC3 or UC4 mark wood for ground or above-ground use, respectively. In the absence of tags or stamps, chemical test kits are a practical option for identifying CCA-treated wood, especially in older materials treated before 2003, which can contain higher levels of arsenic. For accuracy, swipe or field test kits available online or from certain hardware stores can confirm the presence of specific chemicals, like arsenic in older CCA treatments.

### Best Practices for Reusing Treated Wood

- Approved Reuses: Treated wood may be reused in applications where exposure risks are minimized, such as support beams or non-sensitive landscaping. Items must remain whole (not mulched). Reuse should avoid increasing leaching risks, combusting, or placement near food crops.

- Chlorophenolic-treated Wood: Reuse is discouraged due to toxicity, except by the original owner, and should include a consent form detailing risks, management, and disposal options. This includes Treated Wood with Chromated Copper Arsenate (CCA), Ammoniacal Copper Quat (ACQ), and Ammoniacal Copper Zinc Arsenate (ACZA).

**Disposal Protocols**

- Household Waste: Exempt from hazardous waste regulation. Households may dispose of treated wood at NEWSVT Landfill.

-Non-household Waste AKA “Hazardous Waste”- (*Waste generated from businesses and/or municipalities*): Treated wood must be evaluated to determine if it is hazardous waste. Waste that is determined to be hazardous must be managed in accordance with the Vermont Hazardous Waste Management Regulations.

With the exception of one exemption (see below), treated wood waste is considered to be hazardous waste when certain contaminants are present at or above specified limits. The test method used to make this determination is the Toxicity Characteristic Leaching Procedure, or TCLP. The regulatory levels for the contaminants generally associated with treated wood are specified in the following chart:

Types of Treated Wood / Distinguishing Characteristics	Hazardous Waste Number	Contaminant	Regulatory Level (mg/L)
<b><u>Inorganic Preservatives:</u></b> "greenish" in color.	D004	Arsenic	5.0
	D007	Chromium	5.0
<b><u>Creosote Formulation:</u></b> brown to dark brown in color; may be coated with tar; has a "smoky", chemical odor.	D023	o-Cresol	200.0 <sup>1</sup>
	D024	m-Cresol	200.0 <sup>1</sup>
	D025	p-Cresol	200.0 <sup>1</sup>
	D026	Cresol	200.0 <sup>1</sup>
<b><u>Chlorophenolic Formulations:</u></b> Similar characteristics to creosote.	D037	Pentachlorophenol	100.0

<sup>1</sup> If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200.0 mg/l.

Note that there is an exemption for managing arsenical treated wood or wood products as a hazardous waste:

**§ 7-203 CONDITIONAL EXEMPTIONS**

The following wastes are exempted from the provisions of these regulations only if all conditions for that exemption is met. (v) Waste which consists of discarded arsenical-treated wood or wood products which fails the test for the toxicity characteristic for hazardous waste codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials’ intended end use.

**- Prohibited Disposal Practices: All-treated wood cannot be burned or mulched due to potential toxic emissions. Facilities handling treated wood should maintain dedicated containers for waste and ensure treated wood is directed to lined landfills.**

### **FAQs**

- Can treated wood be mulched? No. Treated wood, particularly CCA-treated, should never be mulched due to health and environmental hazards.
  - Can treated wood be burned? No. Burning of treated wood can cause significant health and environmental hazards and is a violation of the Vermont Air Pollution Control Regulations.
  - What precautions should workers take? Workers should wear eye protection, gloves, and masks to reduce exposure to treated wood particles and prevent potential infections from splinters.
  - Where to dispose of treated wood? Dispose of treated wood with certified solid waste haulers and facilities that will properly dispose of the treated wood at certified lined landfill disposal facilities.
  - For more information or to report violations such as dumping or burning of treated wood waste, contact the Vermont Agency of Natural Resources, Dept. of Environmental Conservation.
- Waste Management and Prevention Division for questions at 802-828-1138**
- Air Quality and Climate Division for burning complaints at 802-661-8937**