

Fact Sheet

Management of Treated Wood Waste in California

December 2020 Update, Rev. 12/22

Introduction

The statute ([Health and Safety Code \(HSC\) 25150.7](#)) and regulations ([California Code of Regulations, title 22, section 67386.1 et seq.](#)) that authorized treated wood waste (TWW) to be handled with alternative management standards will expire on December 31, 2020. After that date, all TWW that exhibits the hazardous waste characteristic of toxicity will be a fully regulated hazardous waste and will no longer be eligible for disposal in Class II or Class III landfills. The purpose of this fact sheet is to provide information and guidance to generators on procedures for management and disposal of TWW that is a hazardous waste.

What is treated wood?



Wood being removed from a vessel following pressure treatment.

Treated wood is wood that has gone through a treatment process with chemical preservatives to protect it against pests and environmental conditions. Typically, treated wood is used in exterior applications where ground or water contact is likely.

- What qualifies as treated wood?
 - Treated wood means wood that has been treated with a chemical preservative for purposes of protecting the wood against attacks from insects, microorganisms, fungi, and other environmental conditions that can lead to

decay of the wood, and the chemical preservative is registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act ([7 U.S.C. Sec. 136 et seq.](#)). These preservatives often include one or more of the following constituents: arsenic, chromium, copper, pentachlorophenol, and creosote.

- What doesn't qualify as treated wood?
 - Natural wood with no chemical preservatives.
 - Natural wood coated in paint or surface finish such as lacquer, shellac, polyurethane and varnish.

What are the different types of treated wood?

There are two main groups of treated wood preservatives, water-based and oil-based. Wood treated with water-based preservatives are widely used and are commonly utilized in residential, commercial, marine, agricultural, recreational, and industrial applications. Wood treated with oil-based preservatives is primarily used for industrial applications such as utility poles, piling, posts, and railroad ties.

- What are some chemicals that are commonly used to treat wood?
 - Water-Based Preservatives
 - Acid Copper Chromate (ACC)
 - Alkaline Copper Quaternary (ACQ)
 - Copper Azole (CA)
 - Chromated Copper Arsenate (CCA)
 - Copper-HDO
 - Oil-Based Preservatives
 - Copper Naphthenate
 - Creosote
 - Pentachlorophenol (PCP)
- How are the treatment chemicals commonly applied to the wood?
 - Pressure Treatment
 - Brief Dipping
 - Cold Soaking and Steeping
 - Diffusion
- What is treated wood commonly used for?
 - Exterior applications
 - Applications where the wood will be in direct contact with soil or water
 - Applications where long life is important
 - Utility industry - electric, gas, or telephone service (see [HSC 25143.1.5](#))
- What are some wood species that are commonly treated?
 - Hem-Fir and Douglas-Fir
 - Pines (e.g. Southern Yellow Pine, Red Pine, Ponderosa Pine)
 - Spruce

Is my wood treated and which type do I have?



Example of pressure treated wood showing indentations from treatment.

Treated wood can often be visually distinguished by its appearance. There are several signs to look out for when determining if a piece of wood has been treated or not.

- What are some things to look for when determining if wood is treated or not?
 - Treated wood end tag
 - Wood manufacturer stamp codes
 - Indentations on the surface of the wood (as seen in the photo above)
 - When cut, staining is visible around the perimeter only
 - Discoloration (e.g. green or dark brown appearance)
 - Odor

Treated wood may have an end tag that looks similar to the figure below.

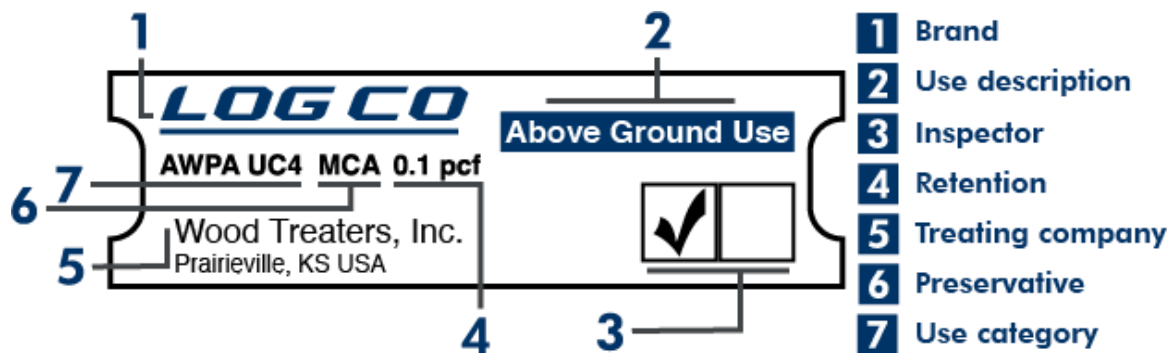


Photo credit: National Pesticide Information Center.

The end tag should have information about the preservative used as well as information about proper use sites (e.g. indoors, outdoors, in water, ground, above ground).

Why is treated wood waste potentially hazardous?

TWW has the potential to be a hazardous waste if it contains elevated levels of one or more of the following constituents: arsenic, chromium, copper, pentachlorophenol, and creosote. If TWW is not properly disposed of, the chemicals it contains can contaminate soil, surface water, and groundwater. This poses a risk to human health and the environment. TWW may exceed California hazardous waste thresholds for non-RCRA waste; studies have shown that TWW is less likely to exceed U.S. EPA hazardous waste thresholds for RCRA waste. In California, TWW that is a hazardous waste is identified with state hazardous waste code 614.

Analysis of representative samples of treated wood has shown that it has the potential to exhibit a hazardous waste characteristic of toxicity under California state standards. Specifically, samples of treated wood may exceed the Total Threshold Limit Concentration (TTL) values ([Cal. Code Regs., tit. 22, § 66261.24 \(a\)\(2\)\(A\).](#)) for metals and may exceed the Soluble Threshold Limit Concentration (STLC) values for metals when subjected to the Waste Extraction Test (WET). Samples of treated wood may also exceed acute aquatic toxicity limits ([Cal. Code Regs., tit. 22, § 66261.24\(a\)\(6\).](#)).

In 2008, DTSC conducted a study on samples of wood treated with various treatment chemicals including Copper Azole, Alkaline Copper Quaternary, and Creosote. The study showed that certain species of wood treated with these chemicals may be a hazardous waste when discarded. The findings of the study were documented in a report titled "Hazardous Waste Analysis of Copper Azole, Alkaline Copper Quaternary, and Creosote Preserved Wood" which is available on DTSC's [website](#) (Appendix E).

What rules are changing regarding treated wood waste management?

[Health and Safety Code section 25150.7.](#) authorized DTSC to promulgate regulations for alternative management standards for non-RCRA hazardous TWW. The regulations that DTSC developed were codified in California Code of Regulations, title 22, division 4.5, [chapter 34](#). However, [Health and Safety Code section 25150.7\(k\)](#) stated that the statute would become inoperative at the end of 2020 and would be repealed on January 1, 2021. Because the statute is sunseting, the regulations promulgated pursuant to the statutory authority will also no longer be effective. Therefore, the alternate management standards for TWW in California Code of Regulations, title 22, division 4.5, [chapter 34](#) can no longer be utilized as of January 1, 2021.

- What do the changes mean?
 - Hazardous TWW must now be managed as a hazardous waste pursuant to California Code of Regulations, title 22, division 4.5, [chapter 12](#), [13](#), [14](#), [15](#), [16](#), [18](#), [20](#) and Health and Safety Code, division 20, chapter 6.5, [article 6](#), [6.5](#), [9](#).

- Hazardous TWW must now be transported to a class I hazardous waste landfill, or to an authorized out of state landfill, for disposal.
- Wood waste removed from electric, gas, or telephone service remains exempt from these requirements pursuant to [Health and Safety Code section 25143.1.5.](#)

Is my treated wood a waste?

When treated wood is no longer useful and is discarded, it is regarded as treated wood waste (TWW).

- What is a waste?
 - Pursuant to [California Code of Regulations, title 22, section 66261.2](#), a material is considered to be discarded if it is:
 - **Relinquished** (disposed of; burned or incinerated; accumulated, stored or treated [but not recycled] before, or instead of, being disposed of, burned or incinerated)
 - **Recycled** (accumulated, stored or treated before recycling by being managed in a manner constituting disposal [placed on land], burned for energy recovery, reclaimed, or accumulated for speculative purposes)
 - **Inherently waste-like** when it is recycled (such as RCRA waste codes F020, F021, F023, F026 and F028 [contains dioxins], or a secondary material fed to a halogen acid furnace)
- Which of these apply to treated wood and when does treated wood become a waste?
 - Treated wood is considered a waste when it serves no further purpose and is relinquished (by being disposed or stored with the intent of being disposed).
- Can I reuse or repurpose my treated wood?
 - Yes, used treated wood that is not a waste can be reused.
 - Treated wood should only be reused in an appropriate use application based on the type of preservative used.
- Can, and how, should I store my treated wood?
 - If your treated wood is non-hazardous:
 - Hazardous waste regulations do not apply.
 - If your treated wood is not a waste:
 - Used treated wood that is in good condition may be stored for future reuse. However, storage of treated wood that would be a hazardous waste when discarded simply to avoid disposal costs is prohibited. Used treated wood should be stored in a manner consistent with a valuable resource (e.g., covered, stacked, labeled etc.).
 - If your TWW is hazardous:
 - The waste must be stored in a labeled and closed container.
 - Storage time limits will apply (see later discussion).
- What else should I know about hazardous TWW?
 - A generator of hazardous TWW cannot:
 - Burn it
 - Treat it (e.g. cut or mulch it) after generation

- Put it in the residential garbage
- Store it on the ground (must be containerized)

How do I determine if my treated wood waste is a hazardous waste?

Pursuant to [California Code of Regulations, title 22, section 66262.11](#), the generator of a waste is responsible for making a hazardous waste determination.

Options:

- Assume it's hazardous
 - The generator of TWW has the option to assume that the waste is a hazardous waste and manage it accordingly.
- Apply generator knowledge
 - The generator of TWW can apply their knowledge to determine if the waste is a hazardous waste. For example, the generator could use their knowledge of the waste (e.g., type of wood, treatment chemicals used, age of the wood etc.) to help inform a decision about whether the waste is likely hazardous.
 - If generator knowledge is used to make a hazardous waste determination it is good practice to document how, and on what basis, the decision was made.
- Conduct testing
 - The generator of TWW can submit representative samples of the waste to a laboratory for testing to compile data to support a hazardous waste determination.

TWW that is a hazardous waste should be identified with state hazardous waste code 614 on the hazardous waste manifest.

What are my options after I have determined that my treated wood waste is a hazardous waste?

If you have determined that your TWW is a hazardous waste, then it must be handled in accordance with the statutes and regulations referenced below.

For residents that generate TWW incidental to owning and maintaining their own place of residence:

- Pursuant to [Health and Safety Code section 25218.4](#) and [California Code of Regulations, title 22, section 66262.10\(i\)](#), a resident that transports up to 50 lbs of TWW to a household hazardous waste collection facility is not required to obtain and EPA or California EPA ID Number or to use a hazardous waste manifest. Residents are advised to call their local household hazardous waste facility in advance to confirm that they will accept TWW, and learn about any quantity or size limits that may apply.

For small quantity generators (less than 1000 kg of hazardous waste per calendar month):

- How and where can I store my hazardous TWW?
 - Pursuant to [California Code of Regulations, title 22, section 66262.34](#) and California Code of Regulations, title 22, division 4.5, chapter 15, [article 9](#), hazardous TWW may be stored in either a closed container, on a properly configured drip pad, or inside a hazardous waste storage building.
- How long can I accumulate my hazardous TWW?
 - There is no time limit if you accumulate less than 100 kg total of hazardous waste.
 - If at any point you accumulate more than a total of 100 kg of hazardous waste (TWW and any other hazardous waste), or if you accumulate 1 kg or more of acutely hazardous waste or extremely hazardous waste, then the 90-day accumulation period begins.
 - On January 1, 2021, the 90-day accumulation period begins for generators who have already accumulated more than 100 kg of hazardous TWW prior to this date.
 - If you are generating less than 1,000 kg of hazardous TWW per calendar month you may store your hazardous TWW for up to 180 days pursuant to [Health and Safety Code section 25123.3\(h\)\(1\)](#).
 - If you are generating less than 1,000 kg of hazardous TWW per calendar month and the nearest disposal facility is located more than 200 miles away you may store your hazardous TWW for up to 270 days pursuant to [Health and Safety Code section 25123.3\(h\)\(1\)](#) as long as you adhere to the following conditions.
 - Never accumulate more than 6,000 kg of any hazardous waste at one time.
 - Never accumulate more than 1 kg of acutely hazardous waste or extremely hazardous waste.
- Does my hazardous TWW need to be labeled or documented?
 - Proper documentation must be maintained pursuant to [California Code of Regulations, title 22, section 66262.34\(f\)](#).
 - Hazardous TWW accumulation areas need to be labeled with the following.
 - Clearly labeled with the words “Hazardous Waste.”
 - If applicable, the date on which 100 kg or more was first accumulated.
 - Composition and physical state of the waste, hazards associated with the waste (e.g. toxic), as well as the name and address of the generator.
- Can I transport my hazardous TWW and what is required?
 - Pursuant to [Health and Safety Code section 25163\(c\)](#) you may self-transport up to 50 pounds of hazardous TWW if you meet the following requirements.
 - The hazardous wastes are transported in closed containers and packed in a manner that prevents the containers from tipping, spilling, or breaking during the transporting.
 - Different hazardous waste materials are not mixed within a container during the transporting.
 - If the hazardous waste is extremely hazardous waste or acutely hazardous waste, the extremely hazardous waste or acutely hazardous

waste was not generated in the course of any business and is not more than 2.2 pounds.

- The person transporting the hazardous waste is the producer of that hazardous waste, and the person produces not more than 100 kilograms of hazardous waste in any month.
- The person transporting the hazardous waste does not accumulate more than a total of 1,000 kilograms of hazardous waste onsite at any one time.
- If you do not meet the requirements outlined above, then starting January 1, 2021, you may only transport your hazardous TWW through a registered hazardous waste transporter.
- Where can I dispose of my hazardous TWW?
 - Starting January 1, 2021, hazardous TWW may only be disposed of in a class I hazardous waste landfill or shipped to an out of state facility for disposal.
- Are there any additional requirements?
 - Pursuant to [California Code of Regulations, title 22, section 66262.12](#) you must get a California ID Number, unless you already have an EPA ID Number. More information can be found [here](#).

For large quantity generators (1000 kg or more per calendar month):

- How and where can I store my hazardous TWW?
 - Pursuant to [California Code of Regulations, title 22, section 66262.34](#) and California Code of Regulations, title 22, division 4.5, chapter 15, [article 9](#), hazardous TWW may be stored in either a closed container designed to hold hazardous waste, on a properly configured drip pad, or inside a hazardous waste storage building.
- How long can I store my hazardous TWW?
 - Pursuant to [Health and Safety Code section 25123.3](#) and California Code of Regulations, section 66262.34, you may store your hazardous TWW for up to 90 days.
 - On January 1, 2021, the 90-day accumulation period begins for generators who have already accumulated more than 100 kg of hazardous TWW prior to this date.
 - If you are generating less than 1,000 kg of hazardous TWW per calendar month you may store your hazardous TWW for up to 180 days pursuant to [Health and Safety Code section 25123.3\(h\)\(1\)](#).
 - If you are generating less than 1,000 kg of hazardous TWW per calendar month and the nearest disposal facility is located more than 200 miles away you may store your hazardous TWW for up to 270 days pursuant to [Health and Safety Code section 25123.3\(h\)\(1\)](#) as long as you adhere to the following conditions.
 - Never accumulate more than 6,000 kg of any hazardous waste at one time.
 - Never accumulate more than 1 kg of acutely hazardous waste or extremely hazardous waste.
- Does my hazardous TWW need to be labeled or documented?

- Proper documentation must be maintained pursuant to [California Code of Regulations, title 22, section 66264.34\(f\)](#).
- Hazardous TWW in accumulation areas need to be labeled with the following.
 - Clearly labeled with the words “Hazardous Waste.”
 - The date on which 100 kg or more was first accumulated.
 - Composition and physical state of the waste, hazards associated with the waste (e.g. toxic), as well as the name and address of the generator.
- Do I need an emergency procedures/contingency plan?
 - Adhere to the safety standards outlined in [California Code of Regulations, title 22, section 66265.31](#).
- Can I transport my hazardous TWW and what is required?
 - Starting January 1, 2021, hazardous TWW may only be transported by a registered hazardous waste transporter using a U.S. Department of Transportation approved/certified container.
- Where can I dispose of my hazardous TWW?
 - Starting January 1, 2021, hazardous TWW may only be disposed of in a class I hazardous waste landfill or shipped to an out of state facility for disposal.
- Are there any additional requirements?
 - Pursuant to [California Code of Regulations, title 22, section 66262.12](#) you must get a California ID Number, unless you already have an EPA ID Number. More information can be found [here](#).

Recommendations / Best Management Practices

Plan your project in advance so you are prepared to deal with any hazardous TWW that is generated:

- Project timing and disposal timing.
 - If you have the flexibility regarding the timing of your project, you should consider delaying your project to avoid generating TWW in January-March 2021.
 - If you must generate TWW in the January-March 2021 timeframe, you should consider temporarily storing your waste prior to disposal. If you choose to store your TWW you must comply with applicable storage requirements.
 - Beginning in approximately April 2021, additional flexibility and options for transportation and disposal of TWW will be available.
- Can the treated wood be reused?
 - If the treated wood is repurposed, then it is not a waste and is not required to be managed as a hazardous waste. Treated wood should only be reused in an appropriate use application based on the type of treatment chemical used.
 - If used treated wood is being stored for future use, then it must be stored in a manner consistent with a valuable commodity. If the wood is subsequently discarded and becomes a waste, then a hazardous waste determination must be made and the wood must be managed accordingly.
- What if my waste consists of both treated and untreated wood?
 - Plan to separate treated and untreated wood because different rules may apply to the storage, transport, and disposal of the two waste types.

- How do I determine if the TWW is a hazardous waste?
 - Consider in advance of generation whether the TWW is, or could be, a hazardous waste.
- How will the TWW will be generated?
 - Think about the process by which the waste will be generated. For example, it may be advantageous to perform any necessary size reduction at the time of generation, and to place the TWW directly into its an appropriate container for the waste type, to avoid having to handle and treat the waste post-generation.
- How and where will the TWW be accumulated?
 - If the TWW is, or may be, hazardous then you should consider how it will be accumulated. For example, you should consider what container to use, determine how long the waste may be stored, and how to properly label the waste during storage.
 - Keep a closed 55-gallon, or smaller, container near your treated wood cutting station for storage of off-cuts and sawdust. Label the container with the words “Hazardous Waste – Treated Wood Waste”, “Accumulation Start Date: MM/DD/20YY”, and “California Code of Regulations, title 22, section 66262.34(e).”
- How will the TWW be transported?
 - It is prudent to consider how the waste will be transported to the disposal facility. For example, the choice of container may be impacted by the mode of transportation that will be used.
- How will I dispose of my waste?
 - Think about where the waste will be disposed. Call in advance and confirm that the intended recipient will accept the TWW.

Where can I get additional information?

DTSC website: <https://dtsc.ca.gov/toxics-in-products/treated-wood-waste/>

Send an email to TWW_help@dtsc.ca.gov

Contact DTSC’s Regulatory Assistance Office: 800-728-6942 or RAO@dtsc.ca.gov

- Links:
 - Generator information:
 - Managing Hazardous Waste: <https://dtsc.ca.gov/managing-hazardous-waste/>
 - Generator Fact Sheet: <https://dtsc.ca.gov/hazardous-waste-generator-requirements-fact-sheet/>
 - Waste Classification: <https://dtsc.ca.gov/defining-hazardous-waste/>
 - Transporter information:
 - Managing Hazardous Waste: <https://dtsc.ca.gov/transporters/>
 - Managing Hazardous Wastes at Transfer Facilities: https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/02/Transportation_FS_Transfer_Facilities.pdf

- Hazardous Waste Transporter Requirements Fact Sheet:
<https://dtsc.ca.gov/hazardous-waste-transporter-requirements-fact-sheet/>
- Treated wood information:
 - General Information: <http://npic.orst.edu/factsheets/treatedwood.html>
 - Treated wood analysis: <https://dtsc.ca.gov/wp-content/uploads/sites/31/2019/04/2019-treated-wood-waste-report.pdf>