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End of Service Life Disposal of Preserved Wood Utility Poles

Prepared by:

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About NAWPC

The North American Wood Pole Council (NAWPC) is a federation of three organizations representing the wood preserving industry in the U.S. and Canada. These organizations provide a variety of services to support the use of preservative-treated wood poles to carry power and communications to consumers.

The three organizations are:

Western Wood Preservers Institute
With headquarters in Vancouver, Wash., WWPI is a non-profit trade association founded in 1947. WWPI serves the interests of the preserved wood industry in the 16 western states, Alberta, British Columbia and Mexico so that renewable resources exposed to the elements can maintain favorable use in aquatic, building, commercial and utility applications. WWPI works with federal, state and local agencies, as well as designers, contractors, utilities and other users over the entire preserved wood life cycle, ensuring that these products are used in a safe, responsible and environmentally friendly manner.

Southern Pressure Treaters' Association
SPTA was chartered in New Orleans in 1954 and its members supply vital wood components for America's infrastructure. These include pressure treated wood poles and wood crossarms, and pressure treated timber piles, which continue to be the mainstay of foundation systems for manufacturing plants, airports, commercial buildings, processing facilities, homes, piers, wharfs, bulkheads or simple boat docks. The membership of SPTA is composed of producers of industrial treated wood products, suppliers of AWPA-approved industrial preservatives and preservative components, distributors, engineers, manufacturers, academia, inspection agencies and producers of other wood products.

Wood Preservation Canada
WPC is the association representing the treated wood industry in Canada. WPC and its members are committed to producing safe, quality products while preserving the integrity of the environment through responsible stewardship of our resources. WPC is dedicated to promoting the versatility, strength and sustainability benefits of preserved wood products through proactive communication to end-users, manufacturers and government entities. Learn more at www.woodpreservation.ca.

End of Service Life Disposal of Preserve Wood Utility Poles

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Introduction

Wood utility poles offer outstanding support for overhead transmission, distribution and communication networks. They are economical, non-conductive, readily available, easy to install and rework, and provide strong value throughout their extensive service lives.

Wood poles sequester carbon throughout their lives and promote sustainable forestry by minimizing the need to over-harvest trees. They have lesser environmental impacts as compared to other materials such as steel and concrete poles *(Wood et al, 2008; Bolin and Smith 2012).*

Wood poles must be appropriately handled and managed when they reach the end of their useful service lives or when the electrical demand out grows the existing hardware and infrastructure. Power lines must be upgraded to heavier conductors that deliver larger quantities of electricity. Others must be replaced, typically in the 30- to 60-year timeframe, due to decay and/or other deterioration.

The end of service life stage is the major environmental concern in the lifecycle of any material, including wood utility poles. Repurposing, for example as fence post materials, is often an option. Direct disposal (landfilling) also is an option. Removing the chemicals from wood and then incinerating or reusing the benign leftover wood per federal regulations and state laws is another solution.

Currently, many remediation methods are possible. These methods separate the chemicals from the wood. Recycled wood utility poles can be used for outdoor projects belonging to the parks, farms, landscaping, commercial and industrial projects, similar to the way in which used railroad ties are widely available for landscaping projects. Overall, repurposing and reusing appears to have minimal environmental concerns compared to other methods for disposal of wood poles.

Wood poles in North America

Preservative-treated wood utility poles have played a crucial role in the North America's electrification for about 150 years. Compared to other materials, preserved wood poles exhibit significant advantages due to their renewable and sustainable characteristics.

In addition, preserved wood poles generate less greenhouse gases during manufacture. Due to the natural photosynthesis of trees, wood poles become a long-term repository for atmospheric carbon *(Wood et al, 2008).*

It is well demonstrated that preserved wood poles are critical infrastructure as the backbone of the North American electrical distribution system. They also carry communication lines and associated hardware as well.

Preserved wood poles provide service in the harshest of conditions. Throughout the year, poles may experience swings in temperature of more than 100 degrees F and fluctuations in humidity on the order of 100 percent. Some may experience months or years of extreme rain and other precipitation, followed by months or years of extreme drought.

Additionally, wood utility poles must resist decay fungi and insects as well as damage from wildlife, ice and wind loading. Preservative treating is used to increase the service life to a minimum of 30 years and often out to 70 years or beyond *(Freeman et al, 2005; Morrell 2016).*

Routine inspection and maintenance can often increase wood pole longevity by years or decades while also enhancing electrical reliability. Pole maintenance can reduce unnecessary or premature replacement costs and effectively extend service life.

Ultimately, when a pole reaches the end of its useful life, it must be taken out of service. At that point, the pole must be reused (usually in a less critical application), repurposed (used for

different application), or disposed in some manner. The disposal of wood utility poles can be done in different ways such as landfilling, incinerating, co-generation of power (under regulatory requirements, chipping and recycling.

History of wood pole use

A utility pole is a column or post used to support overhead power lines. It is also used in other public utility roles, including electrical cable, communication wire, optical fiber cable and related equipment (transformers, voltage regulators, streetlights, etc.).

A majority of poles in the North American electrical system are made from wood. However, it should be considered that steel, concrete and fiberglass composite poles are also used.

Preserved wood utility poles are the material of choice for a variety of reasons. These include light weight, climbability, workability, lower cost, long service life, carbon sequestration, ready availability, leading life cycle analysis characteristics, low conductivity, high electrical insulating characteristics, ease of maintenance and modification, and natural aesthetics.

In around 1900, after decades of wood pole use, there was growing demand for appropriate standards to provide a consistent supply of wood poles with predictable structural capabilities. Thus, round timber standards were developed in 1908, which were later adapted by the American National Standards Institute (ANSI) to define the sizes and characteristics of wood utility poles.

Wood pole use today

In the U.S., the standard utility distribution pole is approximately 40 ft. or 12 m. long and is set approximately 6 ft. (2 m.) in the ground (10 percent of the pole's length plus 2 ft.). In accordance with various line requirements, the heights of the utility poles can reach to 120 ft. (37 m.).

Utility poles have been used in two major applications: 1) power lines defined as the transmission or sub-transmission lines that carry high voltage power from generators to substations as well as between substations and; 2) distribution lines which distribute lower voltage power from substations to customers.

The overhead system of poles has been widely used around the world to keep electrical wires and cables insulated from the ground and out of the way of people and vehicles. It is an affordable method used for the modernization and electrification of the U.S. for more than a century.

Overhead systems have favorable cost characteristics and allow utility providers to electrify vast areas and serve millions of customers quickly and reliably. Each day, an estimated 150 million to 183 million wood utility poles safely carry power and other communications services to homes and industry *(Freeman et al, 2019)*

In the U.S., more than 4.2 million wood poles are produced annually, with more than 90 percent used domestically. In addition, some 2 percent of wood poles are replaced annually (Osmose data 2014).

Mathematically speaking, the 2 percent annual replacement rate suggests an average service life of 50 years. These replacements are mainly due to increasing electrical capacity, grid hardening, road expansions and new line construction. The replacement rate is not generally associated with pole deterioration or failures.

Regardless of replacement cause or rationale, at this rate, approximately 3 million to 4 million wood utility poles are taken out of service each year and face end-of-life decisions.

Preservatives and disposal

The long service life of wood utility poles is created by pressure-treating preservatives into the wood. Preservatives provide a chemical barrier to protect wood poles from environmental threats such as decay fungi and insects. Wood preservative chemistries and formulations present challenges for wood utility pole end-of-service-life management.

During much of the 20th century, creosote was the common wood preservative for poles. Other alternatives were widely used as well, including pentachlorophenol (penta or PCP), chromated copper arsenate (CCA), copper naphthenate (CuNap) and borates.

Most poles in service have been treated with one of five preservatives: penta, CCA, CuNap, creosote and Ammoniacal Copper Zinc Arsenate (ACZA or Chemonite).

The newest preservative for wood utility poles is DCOI or 4,5-Dichloro-2-N-Octyl-4-Isothiazolin-3-One. It was standardized for use in utility poles by AWPA in 2017.

Penta is being retired as a preservative option as the sole manufacturer discontinued production of the preservative in 2021. The U.S. Environmental Protection Agency (EPA) has announced it will phase out the registration of penta as a wood preservative.

The EPA regulates the use of all preservatives, including the disposal of wood treated with the chemicals, in a manner that "will not pose unreasonable risks to humans or the environment." *(US EPA RED, 2008)*

Wood poles contain various preservative chemicals that may be harmful to health and the environments if mishandled at the treating plant.

Creosote is produced from the distillation of coal tar by the high temperature carbonization of coal. These chemicals are the byproduct of the coking process during which coal is heated and converted to coke for use in steel manufacturing. Creosote consists principally of aromatic hydrocarbons.

CCA consists of the oxides or salts of copper, chromium and arsenic. The arsenic and copper are used for antifungal activity and toxic effect on parasite insects while the chromium is used to bond the two elements to the wood's cellular components.

Penta is produced using aluminum chloride or ferric chloride in order to catalyze chlorination of phenols.

Copper Naphthenate is a copper salt of naphthenic acid. It is classified by the EPA as a general use preservative.

DCOI is formulation of 4,5-Dichloro-2-N-Octyl-4-Isothiazolin-3-One. The EPA classifies DCOI as a non-restricted use pesticide, providing for more options when wood treated with it are disposed.

The presence of these chemicals and metals in wood pole preservatives do impact the options and decisions in disposing poles at the end of their service life.

Service life considerations

Actual pole service life varies based on the quality of treatment, exposure conditions and maintenance schedule and regimen. Other factors that cause premature ending of service life include grid hardening, road widening and upgrading structures for increased electrical loading. Pole quality at time of initial installation also influences service life.

For poles taken out of service due to deterioration or decay, service life largely depends on pole and treatment quality, maintenance and service environment. One study estimated the average pole life expectancy at 74 years *(Freeman et al, 2005)*, while in another study the average lifetime of wood utility poles was estimated at 50 years *(Osmose Utility Service, OUS 2016)*.

A third study, *(Morrell, 2016),* observed the average service life of wood utility poles was between 35 to 55 years in the current condition and up to 90 years with proper maintenance.

Near the end of their service lives, wood utility poles degrade and deteriorate. If deteriorated, they have little to no residual value for reuse and or repurposing in their full size and capacity. These typically must be disposed.

Federal guidance for managing treated wood is dependent upon the type of chemical used in the preservation process (e.g., CCA, penta or creosote). According to federal law, treated wood or wood products are not classified as hazardous waste because of the Resource Conservation and Recovery Act (RCRA).

Currently, the EPA recommends treated wood disposal through (a) incineration in a commercial or industrial incinerator or (b) burial in a properly operated, permitted sanitary landfill. However, the EPA also mentions that generators must follow their state and local regulations, as they may have more stringent policies or regulations concerning the disposal of preserved wood.

End-of-service life options

End-of-life management typically consists of three major options. Reuse, recycling and repurposing, and disposal.

Reuse

Wood poles taken out of service that remain in good working order can sometimes be reused. This can occur when a newly constructed powerline must be replaced due to a road expansion, grid hardening or increased electrical load.

Existing poles may be removed, stripped and inspected. If they remain in sound working order, they often can be used elsewhere for the same purpose or sometimes cut to a shorter length and used as a smaller sized pole.

Recyling and repurposing

Utility poles can be recycled in some communities where old poles are often transformed into landscaping timbers, fencing materials, structural supports, parking curbs, retaining walls, pole barns and guardrail posts. This repurposing can be suitable alternative to dispoal for those poles removed from service.

Another alternative is converting the round poles to lumber, posts or timbers by sawmilling. Though

not typically a high production or high-volume endeavor, small sawmills can successfully make yard or utility lumber in this manner.

For resawing pole removed from service, care in handling and use of personal protective equipment must be employed. Also, there is a possiblity that the sawdust and residuals from sawmilling may trigger hazardous waste disposal requirements. Appropriate measures to control and dispose of sawdust and residuals may be required.

Each preservative system will have its own characteristics and recommended handling procedures and personal protective equipment requirements. These may include but are not limited to use of gloves, long sleeves and pants, respirators or particulate masks, safety glasses and other personal protective equipment.

There are two primary methods for disposing the utility poles: landfilling and incineration.

Disposal - landfills

Disposal of old poles in a landfill is still the most common method, although there are regulations based on material type. In general, most states accept treated wood as solid waste into landfills.

Certain treatments such as CCA are often disposed into composite-lined facilities that can contain any migration of the preservative into the environment.

According to the EPA, “preservative-treated wood is not hazardous waste if it is disposed of in its originally intended state.” There are other laws in many states and local jurisdictions which may add stricter restrictions to disposal of treated wood.

Over the past few decades, companies involved in utility service have conventionally disposed of utility poles at the end of their respective service lives. This includes landfilling or offering used poles for other applications on request.

While landfilling has been a long-term disposal option, availability of space in existing landfills is becoming more limited, which can negatively affect the disposing of treated wood.

Disposal - incinerating

Preserved wood poles are not allowed to be burned in open areas. In some cases, industrial burners that meet state and federal air quality standards are allowed to use poles retired from service as a fuel source

The preservative used to treat the pole will determine whether it can be disposed by incinerating or used for fuel in a co-generation facility. There are federal and state regulations that prohibit the burning of wood treated with preservatives such as CCA and penta in industrial facilities.

Disposing utility poles by incineration must be done in an approved facility that can meet federal, state and local laws.

Pole disposal - past, present and future

Approximately 2 percent of treated poles are withdrawn from service annually, resulting in more than 3 million tons of used treated wood material *(North Pacific Group)*. In general, recycling wood poles is legal in several states.

Poles taken out of service can be redeployed to the greatest extent possible while also protecting consumers.

Recycling wood poles requires an appropriate level of consumer education with regard to the preservatives used to treat the wood. Safe handling, storage and use practices must be followed by individuals that employ used or recycled poles.

Reuse of older utility poles is the preferred choice. If it cannot be reused, they should be disposed in a proper manner.

Health and safety codes requires that treated wood, which may include wood utility poles removed from service, be disposed and managed in specific ways *(Western Wood Preservers Institute, 2005).* These regulations require the treated wood be kept separate and not mixed with other wood for disposal.

State disposal regulations

Treated wood waste, or TWW, regulations are applied when the wood pole has to be disposed. It is worth noting that all treated wood that is discarded generally is not considered as hazardous by most states and the generator is responsible to make the determination.

In California, disposal of utility poles is managed through the Alternative Management Standards (AMS) managed by the state Department of Toxic Substances Control (DTSC). These standards allow disposal of utility poles at approved composite-lined landfills.

Treated wood disposal regulations and guidance vary by state. A brief description of current state disposal requirements for chemically treated wood is provided in Table 2 starting on Page 7 *(Technical Guide 146, 2017)*. These listings are solely provided to describe the variation in state disposal requirements and are not intended as the final state and local requirements in treated wood disposal, as

such requirements are often subject to change.

Those generating wood pole for disposal are responsible for contacting their state and local regulatory authorities to determine the proper treated wood management and disposal practices.

Table 2 - State Guidance on Managing Chemically Treated Wood

Alabama	Solid waste. Alabama Department of Environmental Management Land Division, PO Box 301463, Montgomery, AL 36130-1463 334-271-7730 *https://adem.alabama.gov/default.cnt*
Alaska	Solid waste. Creosote treated wood cannot be open burned. Alaska Dept. of Environmental Conservation, Div. of Environmental Health Solid Waste Program 555 Cordova Street, Anchorage, AK 99501 907-269-7802 *https://dec.alaska.gov*
Arizona	Determine whether potential RCRA characteristic hazardous waste. *https://legacy.azdeq.gov/environ/waste/hazwaste/download/managehw.pdf* Arizona Department of Environmental Quality, Waste Programs Division 1110 W. Washington Street, Phoenix, AZ 85007 800-234-5677 *http://www.azdeq.gov*
Arkansas	Determine whether potential RCRA characteristic hazardous waste. May be disposed in a Class 1 Landfill if non-hazardous. Arkansas Department of Environmental Quality 5301 Northshore Drive North, Little Rock, AR 72118 501-682-0744 *https://www.adeq.state.ar.us*
California	Determine whether potential RCRA characteristic hazardous waste. Dispose of in a Class 1 hazardous waste landfill or in a composite-lined portion of a SW landfill approved to accept treated wood waste in accordance with California COR 22, Division 4.5 Chapter 34 under the Alternative Management Standards. *https://www.TWWDisposal.org* California Department of Toxic Substances Control 1001 I Street, P.O. Box 2815, Sacramento, CA 95812 916-323-2514 *https://dtsc.ca.gov/toxics-in-products/treated-wood-waste/*
Colorado	Determine potential RCRA characteristics. May be disposed of in a MSW landfill if non-hazardous. Colorado Department of Public Health and Environment 4300 Cherry Creek Drive South, Denver, CO 80246-1530 303-692-2000 *https://cdphe.state.co.us/*
Connecticut	Reuse and recycle where possible. Contractors, utilities and manufacturers should contract directly with Connecticut Department of Energy and Environmental Protection for disposal in a permitted bulky waste landfill. *https://portal.ct.gov/DEEP/Reduce-Reuse-Recycle/Proper-Use-and-Disposal-of-Treated-Lumber* Connecticut Department of Environmental Protection 79 Elm Street, Hartford, CT 06106 860-424-3000 *https://portal.ct.gov/deep*
Delaware	Solid Waste. Dispose of in a MSW landfill. *https://dnrec.alpha.delaware.gov/waste-hazardous/* Delaware Department of Natural Resources and Environmental Control Richard & Robbins Building, 89 Kings Highway. Dover, DE 19901 302-739-9000 *https://dnrec.alpha.delaware.gov/*
District of Columbia	Pressure-treated and creosote-treated wood are considered hazardous and are not recyclable. Contact the District of Columbia Department of Public Works Sanitation Services to determine treated wood disposal and reuse requirements. District of Columbia Department of Public Works Sanitation Services 2000 14th Street, NW, Washington, DC 20009 (202) 673-6833 *https://dpw.dc.gov/page/sanitation-services*

Florida	Dispose of in a lined landfill. Florida Department of Environmental Protection 3900 Commonwealth Blvd. M.S. 49, Tallahassee, FL 32399 850-245-2118 *https://floridadep.gov/waste*
Georgia	Solid waste. Georgia Department of Natural Resources, Environmental Protection Division 2 Martin Luther King Jr. Drive, Suite 1152, East Tower, Atlanta, GA 30334 888-373-5947 *https://epd.georgia.gov/*
Hawaii	Construction and demolition waste. Reuse according to intended purpose or dispose in Hawaii Department of Health permitted landfill. Incineration/burning is prohibited. *https://health.hawaii.gov/shwb/files/2013/06/trtdwood1.pdf* Hawaii State Department of Health, Solid and Hazardous Waste Branch 919 Ala Moana Blvd., Room 212, Honolulu, HI 96814 808-586-4226 *https://health.hawaii.gov/*
Idaho	Contact the Idaho Department of Environmental Quality Solid Waste Program to determine landfill type for disposal. Idaho Department of Environmental Quality, Waste Management and Remediation Division 1410 North Hilton, Boise, ID 83706 208-373-0502 *https://www.deq.idaho.gov/*
Illinois	Treated wood that is not weathered or that does contain surface deposits or surface staining must be tested to determine if it is hazardous. Treated wood that is weathered and contains no surface deposits or surface staining destined for treatment, storage or disposal. The generator is not required to determine if this wood is hazardous. *https://www2.illinois.gov/epa/topics/waste-management/factsheets/Pages/treated-wood.aspx* Illinois Environmental Protection Agency 1021 North Grand Avenue East, P.O. Box 19276, Springfield, IL 62794 217-782-3397 *https://www2.illinois.gov/epa/Pages/default.aspx*
Indiana	Determine whether potential RCRA characteristic hazardous waste. May be disposed of in a MSW landfill if non-hazardous. *https://www.in.gov/idem/files/nrpd_waste-0031.pdf* Indiana Department of Environmental Management Indiana Government Center North, 100 N. Senate Ave., Indianapolis, IN 46204 317-232-8603 *https://www.in.gov/idem/*
Iowa	Solid waste. Reuse or recycle according to intended use. Iowa Department of Natural Resources 502 E. 9th Street, 4th Floor, Des Moines, IA 50319 515-725-8200 *https://www.iowadnr.gov/*
Kansas	Dispose of in a C&D landfill. Kansas Department of Health and Environment Curtis State Office Building, 1000 SW Jackson Street, Suite 320, Topeka, KS 66612 785-296-1500 *https://www.kdheks.gov/*
Kentucky	Solid waste. Contact the Kentucky Department for Environmental Protection to determine landfill type for disposal. Kentucky Department for Environmental Protection 200 Fair Oaks Lane, Frankfort, KY 40601 502-564-2150 *https://eec.ky.gov/Environmental-Protection/Pages/default.aspx*
Louisiana	Solid waste. Contact the Louisiana Department of Environmental Quality to determine landfill type for disposal. Louisiana Department of Environmental Quality 602 N 5th Street, Baton Rouge, LA 70802 866-896-LDEQ *https://www.deq.louisiana.gov/*

Maine	Arsenical treated wood must be separated from the other waste at a lined solid waste landfill. There is a limit to the amount that is able to be disposed of in an unlined landfill. *http://www.mainelegislature.org/ros/LOM/LOM121st/10Pub451-500/Pub451-500-96.htm* Maine Department of Environmental Protection 17 State House Station, 28 Tyson Drive, Augusta, ME 04333-0017 207-287-7688 *https://www.maine.gov/dep/index.shtml*
Maryland	Determine whether potential RCRA characteristic hazardous waste. May dispose of in a MSW or rubble landfill if non-hazardous. Maryland Department of the Environment 1800 Washington Blvd., Baltimore, MD 21230 410-537-3000 *https://www.mde.state.md.us/Pages/index.asp*
Massachusetts	Manage in accordance with Massachusetts Special Waste requirements. Massachusetts Department of Environmental Protection 1 Winter Street, Boston, MA 02108 617-292-5500 *https://www.mass.gov/lists/waste-recycling-laws-rules*
Michigan	Dispose of in landfills licensed to hold treated wood. Michigan Department of Environmental Quality Constitution Hall, 525 West Allegan Street, Lansing, MI 48909-7973 517-284-6651 *https://www.michigan.gov/egle/public/learn/waste-management*
Minnesota	Dispose of in C&D debris or MSW lined landfill; only creosote treated wood can be burned in industrial incinerator approved by Minnesota Pollution Control Agency. Minnesota Pollution Control Agency 520 Lafayette Road, St. Paul, MN 55155-4194 800-657-3864 *https://www.pca.state.mn.us/*
Mississippi	Reuse according to originally intended use. Small amounts dispose of in a MSW landfill or Class I rubbish sites. Larger volumes should be disposed of in a municipal landfill or larger lined disposal facility. Mississippi Department of Environmental Quality, Waste Division P.O. Box 2281, Jackson, MS 39225 601-961-5171 *https://www.mdeq.ms.gov/land/waste-division/*
Missouri	Dispose of in landfills permitted for sanitary or demolition waste. Missouri Department of Natural Resources, Solid Waste Management Program P.O. Box 176, 1101 Riverside Drive, Jefferson City, MO 65102-0176 1-800-361-4827 or 573-751-3443 *https://dnr.mo.gov/waste-recycling*
Montana	Solid waste when used for its intended purpose. Contact local landfill for disposal options. Burning treated wood prohibited. Montana Department of Environmental Quality 1520 E. 6th Avenue, Helena, MT 59620-0901 406-444-2544 *https://deq.mt.gov/twr/Programs/solidwaste*
Nebraska	Solid waste. Disposed of in a permitted municipal solid waste or C&D landfill without prior approval from the department. Any type of treated wood that has been painted or contaminated with anything that may be hazardous is subject to a hazardous waste determination. If determined to be hazardous, it must be disposed of according to the Nebraska Hazardous Waste Laws. Nebraska Department of Environmental Quality 1200 N Street, Suite 400, P.O. Box 98922, Lincoln, NE 68509 402-471-2186 *http://dee.ne.gov/NDEQProg.nsf/OnWeb/IWM*
Nevada	Contact the Nevada Department of Conservation and Natural Resources Division of Environmental Protection to determine landfill type for disposal. Nevada Department of Conservation and Natural Resources, Division of Environmental Protection 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701-5249 775-687-4670 *https://ndep.nv.gov/land/waste/solid-waste*
New Hampshire	Disposed in a permitted landfill or a C&D debris processing facility. New Hampshire Department of Environmental Services 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095 603-271-3503 *https://www.des.nh.gov/waste*

New Jersey	Determine whether potential RCRA characteristic hazardous waste. May dispose of in a MSW if non-hazardous. *https://www.state.nj.us/dep/dshw/recycling/admentme/Union/042706.pdf* New Jersey Department of Environmental Protection P.O. Box 420, Trenton, NJ 08625 609-633-1418 *https://www.nj.gov/dep/dshw/*
New Mexico	Contact the New Mexico Environment Department to determine landfill type for disposal. New Mexico Environment Department, Waste Management Harold L. Runnels Building, 1190 St. Francis Drive, Suite N4050, Santa Fe, NM 87502-5469 505-827-2855 *https://www.env.nm.gov/waste/*
New York	Dispose of in C&D landfill or MSW landfill authorized to accept C&D waste. *https://www.dec.ny.gov/chemical/8790.html* New York State Department of Environmental Conservation 625 Broadway, Albany, NY 12233-0001 578-402-8044 *https://www.dec.ny.gov/index.html*
North Carolina	Contact the North Carolina Department of Environment and Natural Resources to determine landfill type for disposal. North Carolina Department of Environmental Quality 1601 Mail Service Center, Raleigh, NC 27699-1601 919-733-4984 *https://deq.nc.gov/about/divisions/waste-management*
North Dakota	Solid waste landfill. Contact the North Dakota Department of Health, Division of Waste Management to determine landfill type for disposal. North Dakota Department of Health, Division of Waste Management 918 East Divide Avenue, 3rd Floor, Bismarck, ND 58501-1947 701-328-5166 *https://www.health.nd.gov*
Ohio	Disposed of in a C&D landfill. Ohio Environmental Protection Agency P.O. Box 1049, Columbus, Ohio 43216-1049 614-644-3020 *https://epa.ohio.gov/home*
Oklahoma	Solid waste that must be disposed of in an Oklahoma DEQ permitted landfill. *https://www.deq.ok.gov/wp-content/uploads/2020/12/OpenBurningAndYou_01-2021.pdf* Oklahoma Department of Environmental Quality, Land Protection Division P.O. Box 1617, Oklahoma City, OK 73101-1677 405-702-5100 *https://www.deq.ok.gov/land-protection-division/waste-management/solid-waste/*
Oregon	Solid waste. Treated wood from commercial or industrial use may be burned only in commercial or industrial incinerators or boilers in accordance with state and federal regulations. Oregon Department of Environmental Quality, Land Quality Division 811 SW 6th Ave. Portland, OR 97204-1390 800-452-4011 *https://www.oregon.gov/DEQ/Pages/index.aspx*
Pennsylvania	Dispose of in a MSW landfill or C&D landfill. Pennsylvania Department of Environmental Protection, Bureau of Waste Management Rachel Carson State Office Building, 400 Market Street, Harrisburg, PA 17101 717-787-2300 *https://www.dep.pa.gov/Business/Land/Waste/SolidWaste/Pages/default.aspx*
Puerto Rico	Contact the Puerto Rico Environmental Quality Board to determine landfill type for disposal. Puerto Rico Environmental Quality Board, Office of the Governor P.O. Box 11488, San Juan, Puerto Rico 00910 787-767-8181
Rhode Island	Solid waste landfill. Contact the Rhode Island Department of Environmental Management to determine landfill type for disposal. *http://www.dem.ri.gov/programs/ombuds/outreach/integsw/pdf/demissue.pdf* State of Rhode Island Department of Environmental Management 235 Promenade Street, Providence, RI 02908 401-222-6800 *http://www.dem.ri.gov/programs/wastemanagement/facilities/index.php*

South Carolina	Solid waste landfill. Contact the South Carolina Department of Health and Environmental Control to determine landfill type for disposal. SC Department of Health and Environmental Control 2600 Bull Street, Columbia, SC 29201 803-898-3432 *https://scdhec.gov/environment/land-management/solid-waste*
South Dakota	Disposed of at a permitted solid waste landfill. South Dakota Department of Environment and Natural Resources Joe Foss Building, 523 East Capitol, Pierre, SD 57501 605-773-3151 *https://denr.sd.gov/*
Tennessee	Solid waste landfill. Contact the Tennessee Department of Environment and Conservation to determine landfill type for disposal. Tennessee Department of Environment and Conservation 312 Rosa L. Parks Ave., Nashville, TN 37243 888-891-8332 *https://www.tn.gov/environment/*
Texas	Class I landfill. *https://www.tceq.texas.gov/assets/public/response/drought/managing-wildfire-debris.pdf* Texas Commission of Environmental Quality, Office of Waste Management P.O. Box 13087, Austin, TX 78711 512-239-1000 *https://www.tceq.texas.gov/*
Utah	Manage as a special waste in accordance with Utah special waste requirements. Utah Department of Environmental Quality, Division of Solid and Hazardous Waste P.O. Box 144880, Salt Lake City, UT 84114 801-536-0211 *http://www.deq.utah.gov/*
Vermont	Determine whether potential RCRA characteristic hazardous waste. If it is a HW, must be disposed of in accordance with Vermont hazardous waste regulations. If non-hazardous, wood can be disposed of in a certified lined landfill. Vermont Department of Environmental Conservation, Commissioners Office One National Life Drive, Montpelier, VT 05620 802-828-1556 *https://dec.vermont.gov/*
Virginia	Contact the Virginia Department of Environmental Quality to determine landfill type for disposal. *https://www.deq.virginia.gov/land-waste/solid-hazardous-waste/specialty-waste* Virginia Department of Environmental Quality 629 East Main Street, P.O. Box 1105, Richmond, VA 23218 804-698-4000 *https://www.deq.virginia.gov/*
Washington	Arsenical treated wood excluded if used for its intended purpose (WAC 173-303- 071 (3) (g) (i)). Penta- and creosote-treated wood is regulated as dangerous waste unless managed under Treated Wood Exclusion (WAC 173-351) or excluded categories of waste (WAC 173-303-071 (3) (g)). Allows disposal treated wood in a municipal solid waste landfill permitted under chapter 173-351 WAC, provided it is not a listed or TCLP waste. This landfill option cannot be used for wood waste that designates because it is listed or fails the TCLP test, but it may be sent to a non-permitted facility that will treat or recycle it. With any of these disposal options, the treated wood waste does not have to be managed or reported as a dangerous waste, but it must be removed from the generator's site within 180 days. Washington Department of Ecology P.O. Box 47600, Olympia, WA 98504-7600 360-407-6000 *https://ecology.wa.gov/*

West Virgina	Manage as a C&D waste that is disposed of in an approved C&D landfill. *https://dep.wv.gov/WWE/permit/solidwaste/Documents/Attachment.A.pdf* West Virginia Department of Environmental Protection 601 - 57th Street SE, Charleston, WV 25304 304-926-0440 *https://dep.wv.gov/Pages/default.aspx*
Wisconsin	Reuse and recycle according to intended use or dispose of in a C&D waste landfill. *https://dnr.wisconsin.gov/topic/Demo/Debris.html* Wisconsin Department of Natural Resources 101 S. Webster Street, P.O. Box 7921, Madison, Wisconsin 53707 1-888-936-7463 *https://dnr.wisconsin.gov/*
Wyoming	Determine whether potential RCRA characteristic hazardous waste. Contact the Wyoming Department of Environmental Quality to determine landfill type for disposal. Wyoming Department of Environmental Quality 200 West 17th Street, Cheyenne, WY 82002 307-777-7781 *https://deq.wyoming.gov/*

Note: *These listings are solely provided to depict the variation in state disposal requirements and are not intended for use in determining final state and local requirements for treated wood disposal as such requirements are often subject to change. Generators should contact state and local regulatory authorities to determine proper treated wood management and disposal practices.*

Conclusion

The first step in proper disposal of treated wood poles is to determine which kind of preservative has been used to treat wood.

Although under federal laws, disposal of poles classifies the material as “non-hazardous waste,” disposal can be more restricted and vary considerably based upon treatment type at the state level. Thus, it is crucial to follow these laws and attempts should be made to find the appropriate available disposal methods.

Certain additional standards may apply to treated wood poles when it is under the authority of the disposal operator or facility. Organizations involved in disposal of treated wood material are cautioned to ensure relevant state or local requirements that may exceed the federal standards.

Based on the law, the handler of the treated wood waste is in charge of legal compliance and handlers should review the laws applicable to treated wood material and inform any handling concerns with the relevant agency.

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