

Chemically Treated Wood Waste

ACCEPTABLE INDUSTRY PRACTICES

February 2012

Overview

This document describes Alberta Environment and Sustainable Resource Developments recommended management when dealing with chemically treated wood waste resulting from wood previously treated with creosote, pentachlorophenol (PCP), chromated copper arsenate (CCA), copper naphthenate (CN), ammoniacal copper arsenate (ACA), ammoniacal copper zinc arsenate (ACZA), or other chemical preservatives. The first three are oilborne wood preservatives and the other three are waterborne formulations.

Legal Framework and Waste Classification

The *Alberta User Guide for Waste Managers* states that wood treated with wood preservatives or wood protection products registered under the Canadian *Pest Control Products Act* is not a hazardous waste. Creosote, PCP, CCA, CN, ACA, and ACZA are products registered under this Act. Therefore, chemically treated wood including telephone/power poles or railway ties are not classified as hazardous waste and can be disposed of in Class I or Class II landfills provided that prior landfill operator permission is obtained.

Management of Treated Wood Waste

The potential health and environmental impacts associated with the improper management of chemically treated wood waste demands the adoption of recycling, treatment and disposal practices that include:

- Recycling or additional use under controlled conditions,
- High temperature incineration with stabilization of the resulting ash residue when necessary, or
- Landfill disposal at Class I or II landfills.

Chemically treated wood waste is not an inert waste and should never be burned in open fires or disposed of in Class III landfills.

Additional information on the management practices for treated wood is available from the Canadian Council of Ministers of the Environment's (CCME) publication entitled *Provisional Code of Practice for the Management of Post-Use Treated Wood*. Copies are available by contacting the CCME at 1-800-805-3025 or on-line at www.ccme.ca/publications.

Post-Use of Chemically Treated Wood

Creosote is a complex mixture of about 200 organic chemicals that is used primarily by the industry to preserve wood products such as railway ties and power poles. Under warm weather conditions, creosote tends to create odors and exude from the treated wood. Therefore, the use of creosote-treated wood should never occur indoors and should be avoided in outdoor areas frequented by people, specifically children, or animals.

Concerns raised by the use of PCP treated wood stemmed from the potential for the formation of small amounts of dioxins and dibenzofurans when burned in uncontrolled conditions. The immediate environmental and health impacts of PCP are less evident than those associated with creosote treated wood but are generally more serious. PCP is not very soluble in water and leaches from treated wood at very low rates. Consequently, its reuse, mainly in landscaping, is generally acceptable provided that the exposure to potential receptors is minimized. Additional problems arise with the uncontrolled burning of CCA treated wood because the ash residue contains relatively high levels of copper, chromium, and arsenic.

Summary:

- Post-used treated wood is not a hazardous waste in Alberta;
- Treated wood should be recycled or re-used, disposal is the last option;
- Treated wood waste can be disposed of at Class I or Class II landfills; and
- Burning of chemically treated wood is only acceptable in high temperature incinerators. The resulting ash may require stabilization depending on the wood preservatives.

Chemically treated wood including telephone/power poles or railway ties are not classified as hazardous waste and can be disposed of in Class I or Class II landfills provided that prior landfill operator permission is obtained.

Chemically treated wood waste is not an inert waste and should never be burned in open fires or disposed of in Class III landfills.