

**Memorandum
Building Official's Office
City of Chisholm**

From: Steve Erickson
Phone# 218-254-7906
RE: Treated Wood - fasteners

The following is from Chapter four of the International Residential Building Code for treated wood foundation systems (wood exposed to weather and ground).

- Below ground use type 304 or 316 stainless steel.
- Above ground use type 304 or 316 stainless steel, silicon bronze, copper, hot-dipped galvanized steel nails, or hot tumbled galvanized steel nails.
- NOT PERMITTED – Fasteners not protected from corrosion, Electro-galvanized steel nails, and galvanized steel staples.

The following is the ASTM site for ordering the standard approved by the ICC
<http://www.astm.org/Standards/A153.htm>

Fasteners - nails, screws, etc. ASTM – A 153 (1 oz/ft²)

Hardware - connectors, joist hangers, etc. ASTM – A 653 G90 (0.90 oz/ft²)

See the memorandum letter from the state building official.

Point of interest in the letter – The State places the requirement on the manufacturer of the treated material for fastener requirements.

MEMORANDUM

DATE: March 2, 2004

TO: All Building Officials and Interested Parties

FROM: Thomas R. Joachim
State Building Official

SUBJECT: Pressure Treated Wood Fasteners ✓



On February 12, 2002, the United States Environmental Protection Agency (EPA) announced a voluntary decision by industry to move consumer use of treated lumber products away from a variety of pressure-treated woods that contains arsenic, in favor of new alternative wood preservatives. This transition affects virtually all residential uses of wood treated with chromated copper arsenate, also known as CCA, including wood used in play-structures, decks, picnic tables, landscaping timbers, residential fencing, and boardwalks. As of January 1, 2004, EPA will not allow CCA products to be used to treat wood intended for any of these residential uses.

Although the EPA has not concluded that there is unreasonable risk to the public from these products, they do believe that any reduction in exposure to arsenic is desirable (U. S. EPA statement of February 12, 2002).

CCA treated wood can be used until the supply runs out. This voluntary agreement is affecting the supply of CCA material available for decks or other outdoor structures. Lumber suppliers are clearing their inventories and beginning to stock new materials treated with other chemicals. The most common alternate treatments are Alkaline Copper Quaternary (ACQ), Copper Azole and Sodium Borate. According to the lumber and fastener industry, the newer chemicals being used to treat the wood approved for outdoor use may be considerably more corrosive than those previously treated with CCA and therefore require special fasteners, hangers and greater care in the selection of materials that may come in contact with the wood.

Designers, builders, supplies and Building Officials will need to pay particular attention to the grade marks on the lumber, and verify that proper hardware (hangers, nails, brackets) is appropriate with the particular treatment of the lumber. This not only applies to decks utilizing these products but sill plates and posts as well. The code references the American Wood Preservers Association (AWPA), which has published information on this issue. Particular attention should also be made to the manufacturer's installation instructions for the hardware. The International Code Council Evaluation Reports should also be referenced to insure proper product use.

In addition to proper fasteners, the flashing, windows and door surrounds that may be in contact with the wood must be carefully selected to insure they will not fail prematurely. Code enforcers are also cautioned to the potential for galvanic corrosion to occur if dissimilar metals are mixed. Questions should be directed to the manufacturer of the treated material or hardware supplier.

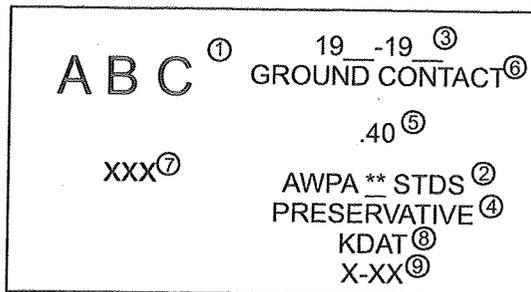
We have provided a resource web link contact list and an updated deck handout for you use on the division web site [Building Codes and Standards Division Home Page](#)

Os/tj/WoodFastenerMemo3-2-04
DO013

Quality Mark:

Displayed on pressure preservative treated wood. It contains information specifying:

- Year the specific wood member was treated;
- Type of preservative used;
- Exposure category (e.g., above ground, ground contact, etc.);
- Company that produced the treated wood; and
- Agency that graded the wood.



** See note below.

- 1 - The identifying symbol, logo or name of the accredited agency.
- 2 - The applicable American Wood-Preservers' Association (AWPA) commodity standard.
- 3 - The year of treatment if required by AWPA standard.
- 4 - The preservative used, which may be abbreviated.
- 5 - The preservative retention.
- 6 - The exposure category. (e.g., Above Ground, Ground Contact, etc.)
- 7 - The company name and location of home office, or company name and number, or company number.
- 8 - If applicable, moisture content after treatment.
- 9 - If applicable, length and/or class.

** As specified below for particular agencies, some or all of the following American Wood-Preservers' Association commodity standards are used by American Lumber Standard Committee, Inc., accredited agencies that supervise facilities that pressure treat wood products:

- C1 All Timber Products — Preservative Treatment by Pressure Processes
- C2 Lumber, Timbers, Bridge Ties and Mine Ties — Preservative Treatment by Pressure Processes
- C3 Piles — Preservative Treatment by Pressure Processes
- C4 Poles — Preservative Treatment by Pressure Processes
- C9 Plywood — Preservative Treatment by Pressure Processes
- C15 Wood for Commercial-Residential Construction — Preservative Treatment by Pressure Processes
- C18 Standard for Pressure Treated Material in Marine Construction
- C22 Lumber and Plywood for Permanent Wood Foundations — Preservative Treatment by Pressure Processes
- C23 Round Poles and Posts Used in Building Construction — Preservative Treatment by Pressure Processes
- C24 Sawn Timber Piles Used for Residential and Commercial Building
- C28 Standard for Preservative Treatment of Structural Glued-Laminated Members and Laminations Before Gluing of Southern Pine, Pacific Coast Douglas Fir, Hemfir and Western Hemlock by Pressure Processes
- C31 Lumber Used Out of Contact with the Ground and Continuously Protected from Liquid Water — Treatment by Pressure Processes
- C33 Standard for Preservative Treatment of Structural Composite Lumber by Pressure Processes
- P1 Standard for Creosote Preservative
- P2 Standard for Creosote Solution
- P3 Standard for Creosote-Petroleum Solution

Ground Contact:

Refers to the location of the wood. "Ground contact treatment" refers to the required level of preservative treatment of lumber. This is the most severe exposure and thus receives the highest level of treatment.