

Removing or Sealing CCA-Treated Wood Products

The Schoolchildren's Health Act of 2006 amended G.S. 115C-12 to add a new subdivision (33), and amended G.S. 115C-47 to add a new subdivision (46), which addresses arsenic-treated (chromated copper arsenate, or CCA-treated) wood products used as play structures, decks, picnic tables, etc. Do not purchase materials treated with CCA for use on school grounds. Local Boards of Education shall seal existing CCA-treated wood on decks, walks, and playgrounds, or establish a timeline for removing it.

Recognize CCA-Treated Wood

- Look for a greenish tint on the wood. Also, look for a black ink stamp on the flat surface of the wood showing the initials SYP (Southern Yellow Pine) in block letters. If both these characteristics are present, and the construction was done prior to 2002, the wood is almost certainly CCA-treated. Some other products may look similar, however. If there is any question, have the wood tested.
- Swipe-tests to identify CCA-treated wood are available from most commercial labs or through the Healthy Building Network, Inc. at www.healthybuilding.net.
- Wood testing kits and soil testing kits can also be ordered through the Safe Playgrounds Project at www.safe2play.org.

Remove and Replace CCA-Treated Wood

An EPA Interim Report on Sealants for CCA-Treated Wood, http://www.epa.gov/oppad001/reregistration/cca/sealant_ga.htm indicates the replacement of CCA-treated structures may not be required, if the material is adequately sealed. However, LEAs may opt to remove the product, with the following considerations:

- Do not burn CCA-treated wood; it is illegal in all 50 states. Even minute amounts of fly ash from burning CCA-treated wood can have serious health consequences.
- Dispose of products into landfills that can legally receive CCA-treated wood.
- If it is not possible to replace all the CCA-treated wood, prioritize replacing the sections with the most human contact (such as handrails or steps) and seal the remainder of the CCA-treated wood.
- Suggested replacement materials include
 1. Sustainably-harvested, naturally rot-resistant woods such as redwood and cedar,
 2. Composite lumbers,
 3. Concrete,
 4. Metal,
 5. Plastic (but not PVC/ Polyvinyl chloride)
 6. Other treated-wood products include ACQ (ammoniacal copper quaternary) (a brown to gray color), or CBA (copper boron azole, type A or B) (a greenish brown color), both of which require stainless steel or hot-dipped galvanized nails or fasteners.

Seal CCA-Treated Wood

If it is not feasible to remove and replace the CCA-treated structure right away, cover it with a sealant. Studies have indicated that sealants can reduce exposure to the leaching of arsenic up to 95%, but they are effective only for a year or two without reapplication. However, many paints and most sealants pose some environmental risks, so choose the safest possible product that will last, as appropriate for the location of use. There may be resources in your community such as "green" building stores where you might find environmentally preferable choices.

Paints perform very well in reducing dislodgeable arsenic, but are not recommended because they can chip and flake. When removed by sanding or power washing, paints can increase the consumer's exposure to arsenic. A specifically designed elastic vinyl product has performed well initially, but some chipping occurred, and recoat preparation might require product removal before re-treatment. [EPA interim report.]

Penetrating stains are also good, and do not flake and peel as paints do. The interim EPA report indicates that the top five products are...

- Clear, water-based acrylic tint base stain (no tint added);
- Oil-based deck toner base deck stain (no tint added);
- Semi-transparent, oil-based sealant with UV blocker;
- Clear, oil-based penetrating sealant with alkyd and acrylic; and
- Clear, oil-based, acrylic stain.

At the time of initial sealant application, and whenever more than two years have passed since the previous application, top soil shall be (a) removed and replaced with similar material, or (b) covered with 4 to 6 inches of soil, gravel, sand, sod, or other vegetation, or (c) otherwise made inaccessible.

In general, treatments should be repeated every year, or perhaps two years if no wear is apparent.

- Do not use acid deck wash or brighteners. These substances can release more arsenic from the wood.
- During times when students are present, do not use paints or solvents that contain VOCs (Volatile Organic Compounds), which give fresh paint its characteristic smell. VOCs can cause headaches, nausea, fatigue, dizziness and many other health problems. The best choice is to buy product with no VOC. Many manufacturers make no-VOC and low-VOC products. Water-based products emit lower levels of VOCs; they are less toxic, less flammable, and safer for the environment. However they are in general less durable.
- Do not use products that contain formaldehyde, fungicide, heavy metals, preservatives, or mildewcide.

Other Safety Concerns

- Make sure that children wash their hands after touching CCA lumber and avoid hand-to-mouth contact while playing on CCA lumber.
- Keep children away from dirt or wood chips around CCA structures.
- When preparing and cleaning CCA wood surfaces, use a soap and water solution with disposable cleaning supplies. Avoid power washing, and never sand or cut CCA wood without the proper protective gear, as this will release dangerous arsenic-laden dust.
- Do not use CCA wood for mulch or wood chips.
- Test soil for residual chemicals, and remove / replace soil if required. One problem with CCA-treated materials is that the chemical leaches into and contaminates the soil.
- Look for CCA-treated wood in areas other than playgrounds – in any area that might be accessible to children or where chemicals from the wood could leach into soil that children might contact.

For additional information, visit the following websites:

U. S. Environmental Protection Agency at www.epa.gov, especially <http://www.epa.gov/oppad001/reregistration/cca/>

For a list of approved / disapproved uses for CCA, see

http://www.epa.gov/oppad001/reregistration/cca/awpa_table.htm

U. S. Consumer Protection and Safety Commission at www.cpsc.gov

Environmental Working Group at www.ewg.org

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