



BEYOND PESTICIDES

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Document Control Office (7407M)
Office of Pollution Prevention and Toxics (OPPT)
Environmental Protection Agency
1200 Pennsylvania Ave., NW.
Washington, DC 20460-0001

Re: Docket Number: OPP-2003-0250
EPA Risk Assessment on Wood Preservatives Containing Arsenic and/or Chromium

We appreciate the opportunity to comment on this phase of EPA's 6-phase public participation comment period for reregistration for wood preservatives containing Arsenic and/or Chromium and copper chromated arsenic (CCA). We submit these comments on behalf of Beyond Pesticides/National Coalition Against the Misuse of Pesticides and its nationwide membership. Beyond Pesticides has worked on the issue of treated wood preservatives for over twenty years and has helped promote public awareness of the dangers present in unaware of the toxic chemicals it contains. For this reason strict consumer, worker and environmental protection is long overdue.

The recent risk assessment documents by the Office of Pesticide Programs show that both arsenicals and chromium (VI) have excessive toxicities that exceed high risk and acceptable risk standards. What we know about arsenicals through human studies, epidemiological studies and animal studies already should be damning enough to restrict if not ban the chemical from use. Arsenicals and chromium VI are known human carcinogens linked to skin, lung, liver, and bladder cancer as well as numerous acute, non-acute, chronic and sub-chronic health affects from minimal exposures of various routes.

There is evidence that chronic toxicological effects of arsenic can occur at doses as low as 0.15 mg daily. Many health impacts clinically linked to arsenic exposure such as high blood pressure, irregular heartbeat, premature hardening of the arteries, and anemia are common throughout the population and may not be easily linked to long-term low-level exposure to arsenic.¹ Arsenic is found in many public water sources throughout the country, these exposures are a major public health threat, therefore any additional exposures must be vigorously limited, especially those that effect children.

¹ Morton, E., Dunnette, D., 1994, "Health Effects of Environmental Arsenic", *Arsenic in the Environment, Part II: Human Health and Ecosystem Effects* Jerome Nriagu, editor John Wiley & Sons, Inc

Studies of Cr (VI), from industrial emissions, have found it to be highly toxic due to strong oxidation characteristics and ready membrane permeability.² Cr (VI) has been known to cause damage to kidneys and liver. Birth defects have been observed in animals exposed to chromium (VI). Skin contact with certain Cr (VI) compounds can cause skin ulcers. Some people are extremely sensitive to chromium (VI) and chromium (III) and allergic reactions consisting of severe redness and swelling of the skin have been noted.³

There is nothing in this stage of the risk assessment to dissuade us of our argument against the registration and use of these heavy-duty wood preservatives. Yet we do see plenty that should persuade the Agency to cancel the registration and move toward assessing more viable and less toxic alternatives.

The Human exposure risk assessment repeatedly reports MOEs that exceed the Agency's level of concern resulting in unacceptably high risks for workers and for users. Throughout the assessment we read "cancer risks dermal and inhalation scenarios exceed the level of concern". Additionally, there are enough substantial data gaps to render even a temporary allowance unacceptable. Previous stages of this assessment have already shown that children exposed to wood products, such as playsets and decks, treated with the CCA suffer an extremely high risk, possibly as high as 5,000 times greater than the agency's acceptable risk threshold.

Leaching into soil and groundwater surrounding and under CCA-treated structures is well documented and a constant concern. Arsenic is continuing to leach into surrounding soils at various levels depending on the soil type, pH balance and organic content. The clean up of contaminated soil is posing a serious challenge to individuals as well as municipalities charged with the safe accessibility of public lands.

Contamination of both surface water and groundwater in concentrations that can contaminate drinking water supplies and affect aquatic organisms is another validated concern. Among many examples is that of Bell Canada, a company that uses mostly CCA-treated poles in Ontario. Each of its storage facilities contain 10-400 poles. The company tested soil and groundwater at 14 pole storage sites in Ontario and found that groundwater and surface soil concentrations of wood preservative chemicals exceeded provincial clean-up criteria at 9 sites by factors of 2 to 10. Robert Goyer, chair of the National Academy of Sciences committee that wrote the 2001 report, *Arsenic in Drinking Water: 2001 Update* said, "Even very low concentrations of arsenic in drinking water appear to be associated with a higher incidence of cancer."

The reliance on the Agency's risk mitigation measures as addressed through precautionary labeling statements and voluntary industry agreements have been shown time and again to be insufficient in informing and therefore protecting the exposure of the public and workers to arsenicals and chrome VI. This we continue to find unacceptable.

² Hazardous Substance Data Bank (HSDB), National Library of Medicine Specialized Information Service
<http://toxnet.nlm.nih.gov/cgi-bin/sis/search>

³ Agency for Toxic Substances and Disease Registry, U.S. Center for Disease Control, <http://www.atsdr.cdc.gov/tfacts7.html>

Given the documented hazards of Cr (VI) and arsenic, EPA is obliged to proceed as rapidly as possible toward cancellation. Without causing significant economic disruption, EPA could order the cancellation of creosote and industry would replace it with economical, less toxic alternatives in a period of months. Steel, concrete or composite, recycled plastic with steel-core, and naturally resistant woods are all effective long-term alternatives to creosote-treated wood. In addition, copper replacements like (ACQ) could be easily be exchanged into industry processes. These alternatives do not pose such high hazards to workers, handlers, users, treatment sites and transportation, and they have longer product lives, reduced disposal costs (and potential gains from scrap income), and less environmental impacts – including leachate pollution.

So far, the findings of the agency's current 6-stage process have served to confirm the findings of over two decades - that use and exposure of wood treated with arsenicals and Cr (VI) consistently exceed acceptable risk criteria. We appreciate the process and the movement made by the agency (albeit slow) to evaluate the dangers of exposure to arsenic and Cr (VI). Yet, it is hard not to take a critical stance when the evidence has been clear for decades that we cannot safely have these carcinogens in our environment and handled by workers, builders or the general public without substantial environmental contamination and unacceptably high risks to human health.

We urge the agency to take strong regulatory action on excessively hazardous chemicals like Cr (VI) and arsenic and create the pathway for less, least and non-toxic alternative materials and approaches to take root.

Sincerely,

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