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QUESTIONS AND ANSWERS ON EPA AND CPSC COATINGS STUDIES

WASHINGTON, D.C. – The US Environmental Protection Agency (EPA) and the Consumer Products Safety Commission (CPSC) have released draft versions of studies evaluating the performance of coatings on CCA-treated wood to reduce dislodgeable residues of the metals. In response, the Wood Preservative Science Council offers the following Q&A:

Is this study of sufficient quality for EPA to make a scientifically defensible policy statement?

No. EPA concedes the goal of the studies is “to provide guidance quickly (page 10).” However, neither EPA nor CPSC evaluated real world conditions, including geographic variability or variability among different species of wood. To understand the way coatings work over time, a multi-year analysis that takes these key factors into account is required. Not a “quick” study.

Specifically, what is wrong with the EPA study?

EPA admits (p.6) that it used “exploratory statistics” to compare the different coatings and that the study was not designed to “make such comparisons.” But EPA proceeds to make comparisons based on exploratory statistics and reports those findings in its conclusions as a matter of fact (p. 119).

What are additional weaknesses with the design of the study?

Several areas of poor experimental design and methodology exist. For example:

1. Improper determination of the baseline levels for comparison. Because the “initial” levels were taken incorrectly, the results showed that rinsing with water alone is as effective or more effective than the coatings.
2. Failure to evaluate critical factors, such as normal abrasion, on the durability of coatings themselves.
3. No evaluation of the effects of geographical variation; EPA looked only at a single location.
4. No evaluation of variation among species of wood.
5. There was inadequate treatment selection and replication, making it impossible to ascertain any meaningful differences.
6. Use of coating types that are likely no longer available to the general public because of legally mandated reduction in the volatile organic carbon (VOC) content of such products.

Specifically, what is wrong with the CPSC study?

Multiple areas of poor experimental design and methodology exist. One of the most important is that the CPSC study used newly treated wood, which is not representative of anything that is currently available to consumers. The CPSC study also failed to take weathering into account -- it is well established that coatings for wood adhere very differently to new wood than to wood that has been exposed to the elements for even a few months. In addition, the study did not take into account geographic variation, the variation among species of wood, or even the interspecies variations in wood. As with the EPA study, the

CPSC study also evaluated coating types that will no longer be available to consumers. Unfortunately, the CPSC report contains so little documentation of what was done that it is impossible to fully evaluate the reliability of the study.

What do the experts say?

Leading toxicologists, wood scientists and risk assessment experts agree that the EPA and CPSC reports pose more questions than answers:

“My review of these reports has revealed significant areas of concern in both the EPA and CPSC studies, including the fundamental purpose of carrying out the work, the basic experimental hypotheses and methods, as well as the presentation and interpretation of results. ... [It] is my belief that the supporting science is sufficiently flawed that the reports should not be published without significant revision, and serious consideration given to withdrawing them entirely. It also follows that because the results presented in these reports are misleading, they cannot in their present form be used by either agency to establish policy or to provide guidance to the public.”

William B. Smith, Ph.D.

SUNY College of Environmental Science & Forestry

“In my opinion, neither of the subject studies meets the criteria set forth by the Office of Management and Budget for information to be disseminated. Certainly the conclusions of these studies have the potential to influence public policy and/or important private sector decisions. Therefore, EPA is required to adhere to the guidelines set forth by the Office of Management and Budget.”

Douglas E. Splitstone

Principal

Splitstone & Associates

Frequent Consultant to EPA Science Advisory Boards

“No regulatory policy statements should be issued based on results from these studies. It is hard to believe that the study design has failed to take into account key variables involved and the critical need to produce scientifically defensible data to support their approach.”

Robert E. Rogers, Ph.D.

President

Toxcon Health Sciences Research Centre, Inc.

“Given the issues concerning the study design, sampling, and data analysis, the results of this study cannot be relied upon to reach general conclusions or make general recommendations regarding the efficacy of coatings to reduce dislodgeable residues from the surface of CCA-treated wood.”

Leila Barraji, D.Sc.

Senior Managing Scientist

Food and Chemicals Practice

Exponent