

QUARTERLY PROGRESS REPORT
October 1 to December 31, 2001

PROJECT TITLE: Fate of CCA-Treated Wood

PRINCIPAL INVESTIGATOR: Dr. Helena Solo-Gabriele, Ph.D., P.E.

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ASSOCIATE INVESTIGATOR: Dr. Timothy Townsend, Ph.D.

AFFILIATION: University of Florida, Dept. of Environ. Engrg. Sci., Solid & Haz. Wst. Prog.

COMPLETION DATE: December 31, 2001

“YEAR 4” Research

Title: Fate of CCA-Treated Wood

(April 1, 2000 to December 31, 2001)

Project Administration

1. The draft of the final report was completed and was included as an attachment to an email dated December 28, 2001. A paper copy has been sent via regular mail. The report is titled, “Leaching and Toxicity of CCA-Treated and Alternative-Treated Wood Products.” The report focuses on the results from the leaching tests and toxicity assays of CCA-treated wood and alternative-chemical treated wood.

Research Activities

Arsenic Speciation in Groundwater Near Landfills

1. Arsenic speciation of groundwater near landfills has been completed. Results indicate that a significant fraction of the arsenic in the sample is “non-labile” and therefore cannot be further speciated using traditional arsenic speciation techniques. Initial work has been conducted to develop the method for arsenic speciation analysis using an HPLC-ICP-MS which will help in further speciating the non-labile phase.

Information Dissemination

1. The manuscript titled, “Characteristics of CCA-Treated Wood Ash” has been scheduled for publication within the *Journal of Hazardous Materials* in volume B89, pages 213 to 232.
2. Helena Solo-Gabriele provided a presentation before the meeting of the American Society of Safety Engineers, in Hollywood, FL, on November 13, 2001. The title of the presentation was, “Safe Use of CCA-Treated Wood.”
3. Helena Solo-Gabriele provided a presentation at Florida International University in Miami, FL, during their research seminar series on November 14, 2001. The title of the presentation was “Environmental Impacts of CCA-Treated Wood.”
4. Tim Townsend presented the results of the CCA research before the USEPA’s Scientific Advisory Panel on October 24, 2001 in Washington D.C. The focus of the USEPA meeting was to evaluate the risks of CCA-treated playgrounds to children. He provided two sets of presentations: one which focused on the environmental impacts during in-service use of CCA-treated wood and another which focused on disposal issues associated with CCA-treated wood.

5. Helena Solo-Gabriele participated as a member of the USEPA Scientific Advisory Panel between October 23 through 26, 2001. She was assigned to the sub-group that evaluated the use of sealants and "buffer materials" to reduce contamination to soils below CCA-treated playground equipment. Buffer materials are those materials placed below playgrounds which are designed to limit a child's injury in the event that they fall.
6. Helena Solo-Gabriele provided a presentation titled, "CCA-Treated Wood, A Contaminant Within C&D Wood Waste" before the SWANA specialty conference held in Orlando, Florida. The presentation was held December 7, 2001. A manuscript was prepared for the conference and this manuscript was published in the conference proceedings. The reference for this publication is:

Solo-Gabriele, H. and Townsend, T., 2001. "CCA-Treated Wood, A Contaminant Within C&D Wood." Proceedings from the SWANA (Solid Waste Association of North America) 2001 Special Waste Conference, Orlando, FL. p.83-87.

7. The web site, www.ccaresearch.org continues to be updated. The last two progress reports have been posted on the web as well as preliminary information concerning our next TAG meeting scheduled for May 6, 2002.

"YEAR 5" Research

Title: Treated Wood, Evaluating the Toxicity During Disposal
(January 1, 2000 to June 30, 2002)

Research Activities

1. All toxicity tests have been completed except for the yeast assay. The methods and results of this portion of the study have been included in the draft of the final report titled, "Leaching and Toxicity of CCA-Treated and Alternative-Treated Wood Products."
2. Leachate was not generated during this quarter from the lysimeters due to very low quantities of rainfall.
3. Leaching experiments (TCLP and SPLP) have been completed on unburned wood samples. These leachates have been analyzed for arsenic and chromium species. An internal draft report has been prepared which summarizes the arsenic speciation data.
4. pH stat tests using new and weathered wood samples have been completed and the arsenic speciation results have been incorporated into the internal draft report.

"YEAR 6" Research

Title: Environmental Impacts of CCA-Treated Wood
(September 1, 2001 to November 30, 2002)

Project Administration

1. The contract for this project had been executed. A sub-contract has been written for the U.Florida portion of the work. The sub-contract is currently being circulated for signatures.

Research Activities

1. Leaching experiments (TCLP and SPLP) have been completed on CCA-treated wood ash samples. These leachates have been analyzed for arsenic and chromium species. The results of the arsenic speciation data have been summarized in an internal report.
2. A considerable amount of literature has been gathered for the portion of the study that focuses on the various arsenic reservoirs throughout the State of Florida.