



March 14, 2002

John Schert, Executive Director  
FCSHWM  
University of Florida  
2207 NW 13 Street, Suite D  
Gainesville, FL 32609

Dear Mr. Schert,

Enclosed is the progress report for the January through March 2002 time period. Since the December 2001 progress report, we have begun preparations for our next TAG meeting, and submitted two research proposals, one to the FDEP and another to the FCSHWM.

Tasks for the next reporting period include hosting our next TAG meeting scheduled for May 6, 2002. I have worked an average of 20 hours per week on this project during the last reporting period.

Please contact me if you have any questions.

Sincerely,

Helena Solo-Gabriele, Ph.D, P.E.  
Associate Professor

cc: Tim Townsend

## QUARTERLY PROGRESS REPORT

January 1 to March 31, 2002

PROJECT TITLE: Evaluating the Toxicity of Treated Wood During Disposal

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

AFFILIATION: University of Miami, Dept. of Civil, Arch., and Environ. Engrg.

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

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

COMPLETION DATE: June 30, 2002

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### “YEAR 5” Research

Title: Evaluating the Toxicity of Treated Wood During Disposal

(January 1, 2000 to June 30, 2002)

#### Research Activities

1. Four landfill leachate and groundwater samples have been collected for arsenic speciation analysis. These samples are currently being analyzed using an HPLC-ICP-MS, a new technique which should help minimizing the interferences observed with the prior technique (HPLC-HG-AFS).
2. 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.
3. 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.

#### Information Dissemination

1. A manuscript titled, “Characteristics of CCA-Treated Wood Ash” was published within the *Journal of Hazardous Materials* in volume B89, pages 213 to 232. A copy of this manuscript was mailed to all TAG members and other interested parties.
2. The manuscript titled, “Pilot Scale Evaluation of Sorting Technologies for CCA-Treated Wood Waste” has been accepted for publication within *Waste Management and Research*.
3. Helena Solo-Gabriele provided a presentation at the US EPA’s National RCRA (Resource Conservation and Recovery Act) Meeting held in Washington D.C. on January 18, 2002. The title of the presentation was, “Environmental Issues Associated with CCA-Treated Wood.”
4. Tim Townsend presented the results of the CCA research on February 12, 2002 before the Forest Products Society Conference called “Enhancing the Durability of Lumber and Engineered Wood Products.” The conference was held in Kissimmee, Florida. The title of Dr. Townsend’s presentation was, “Issues with the Use and Disposal of CCA-Treated Wood in Florida.” A paper by the same title was also published as part of the conference proceedings.

5. The web site, [www.ccaresearch.org](http://www.ccaresearch.org) continues to be updated. The site has been updated to include information concerning our next TAG meeting scheduled for May 6, 2002.
6. A large mailing was sent out to all TAG members and other interested parties. The mailing included information concerning the next TAG meeting, a copy of a journal article recently published, and a copy of the latest technical report called, "On-Line Sorting Technologies for CCA-Treated Wood."

#### "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. The sub-contract for Dr. Townsend's portion of the work has been also executed.

#### 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 partial report has been written by Dr. Solo-Gabriele's graduate student documenting the magnitude of various arsenic reservoirs throughout the State of Florida. This report is currently being edited by Dr. Solo-Gabriele. Dr. Townsend's graduate students are currently compiling data for inclusion in the report as well.
3. One leachate sample was generated from the lysimeters during this quarter. This sample was analyzed for arsenic species. The low number of samples is due to the very low quantities of rainfall.

#### COURTESY REPORT

For Complimentary Studies Not Funded by the FCSHWM

1. Dr. Solo-Gabriele is currently a co-PI on a grant from the National Institutes of Environmental Health Sciences. The title of the grant is, "Impacts of arsenic from CCA-treated wood within marine and terrestrial environments." This grant focuses on evaluating the environmental impacts of CCA-treated wood while it is in-service. The plan is to evaluate the impacts of CCA-treated decks on soil and groundwater and to evaluate CCA-treated wood in the marine environment. To date, leachate collection systems for two decks have been constructed. One leachate collection system was constructed to house a CCA-treated wood and another to house an untreated wood control. Experimentation should begin shortly.
2. Dr. Townsend's research team has constructed a set of 4 decks (two CCA treated, one CBA treated, and one ACQ treated) as part of a study focusing on the impacts of these wood types on soils and water.