

QUARTERLY PROGRESS REPORT  
July 1, 2002 to October 31, 2003

PROJECT TITLE: Extent of CCA-Treated Wood Used for Commercial Mulch

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., P.E.

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

COMPLETION DATE: October 31, 2003

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“YEAR 5” Research

Title: Evaluating the Toxicity of Treated Wood During Disposal  
(January 1, 2000 to December 31, 2002)

Project Administration

1. The final report for this project has been finalized. The title of the report is, “Quantities of Arsenic Within the State of Florida.” Responses to the numerous comments on this report have been prepared and distributed. The final-final version of the report has been posted on the web.

“YEAR 6” Research

Title: Environmental Impacts of CCA-Treated Wood  
(September 1, 2001 to May 31, 2003)

Project Administration

1. The final report for this project has been drafted. The title of the report is, “Arsenic and Chromium Speciation in Leachates from CCA-Treated Wood.” This report has been posted on the web and has been sent to the TAG. A paper copy was sent to the Center a couple of weeks ago.

“YEAR 7” Research

Title: Extent of CCA-Treated Wood Used for Commercial Mulch  
(July 1, 2002 to October 31, 2003)

Project Administration

1. Paperwork is in process to add an additional \$10,000 to the project and to extend the project end date to June 30, 2004. The total for the project is now \$30,000. The purpose of these additional funds is to develop an education program for use of the chemical stains for identifying CCA-treated wood. The scope has been written for these additional funds and a budget has been prepared. This scope/budget has since been sent to the FCSHWM.

### Research Activities

1. Sample collection for this project has been completed. Over 35 samples have been collected.
2. To date laboratory results for 9 samples have been completed.
3. Samples are currently being ashed at the University of Miami within a small muffle furnace. So far 26 samples have been ashed. Arrangements have been made to install the electrical hook-up needed for a new muffle furnace. An order has been placed for the new muffle furnace.

### Information Dissemination

1. The research team submitted 4 abstracts for consideration as poster presentations within the upcoming FICCESS conference titled, "Environmental Impacts of Preservative-Treated Wood." The first authors on these four abstracts were Shibata, Sotome, Jacobi, and Dubey.
2. The manuscript titled, "Impact of chromated copper arsenate (CCA) in wood mulch" was published. The citation for this publication is  
Townsend, T.G., Solo-Gabriele, H.M., Tolaymat, T., and Stook, K., 2003. "Impact of Chromated Copper Arsenate (CCA) in Wood Mulch." *The Science of the Total Environment*, 309: 173-185.
3. The final report titled, "Quantities of Arsenic Within the State of Florida" has been finalized by the research team and has been posted on the web.
4. The draft report titled, "Arsenic and Chromium Speciation in Leachates from CCA-Treated Wood" has been posted on the web.
5. Helena Solo-Gabriele presented a paper titled, "Sorting Technologies for CCA-Treated Wood Waste" at the Managing the Treated Wood Resource, II Seminar. This seminar was sponsored by the American Wood Preservers' Association and the Utility Solid Waste Activities Group. The seminar was held on May 1, 2003 in Boston, MA.
6. The web site, [www.ccaresearch.org](http://www.ccaresearch.org) continues to be updated.

### RCRA Sponsored Project

Title: Management and Disposal Options for CCA-Treated Wood Waste  
(July 1, 2003 to June 30, 2003)

### Project Administration

1. The subcontract for Dr. Townsend's portion of the project has been executed.
2. Several students were hired during the last reporting period to work on this project.

### Research Activities

1. Literature is currently being compiled for this project.
2. Questionnaires were developed to evaluate the current state of CCA-treated wood production and disposal within Florida. Questionnaires were sent to wood treatment plants inquiring about the impacts of the industry phase out on production at their facilities. Questionnaires were developed for C&D recycling facilities and wood cogeneration plants inquiring about policies concerning recycling of CCA-treated

- wood. The last two questionnaires are pending approval through the University of Miami, Internal Review Board.
3. The final progress report has been outlined and is currently being drafted.

“YEAR 8” Research  
Title: Environmental Impacts of CCA Contaminated Mulch  
(July 1, 2003 to October 31, 2004)

Project Administration

1. The revised scope for the project for the \$45,000 award has been written. The budget has been modified and is currently being circulated for signatures through the University of Miami, Sponsored Programs Office.

Research Activities

1. A field trip has been planned for mid-July to collect mulch samples from cities throughout Florida. Arrangements have been made to hire students once the funds are available.
2. Plans have been made for constructing a prototype for the mulch leaching study.

COURTESY REPORT  
For Complimentary Studies

Project Administration

1. Dr. Solo-Gabriele continues to work on the project funded by Florida International University (FIU) and the National Institutes of Environmental Health Sciences (NIEHS). The title of the project is, “Impacts of arsenic from CCA-treated wood within marine and terrestrial environments.” The “sand boxes” have been completed and rainfall, runoff, and infiltration samples are currently being collected and analyzed from the CCA-treated deck and the untreated control.
2. Dr. Solo-Gabriele is currently collaborating with Dr. Stuart Shalat of Rutgers University and Dr. Lora Fleming of the University of Miami Medical School on an epidemiologic study evaluating the impacts of CCA-treated playgrounds on children. Progress on this project has been slowed due to the fact that Miami-Dade County will not provide permission to conduct the study at one of their playgrounds. Plans have been re-initiated to conduct the study in private back-yard playgrounds.
3. Drs. Solo-Gabriele and Townsend have been assisting with the planning of a conference titled, “Environmental Impacts of Preservative-Treated Wood.” This conference is scheduled for February 8-10, 2004. The conference will be sponsored by the Florida Interdisciplinary Center for Environmentally Sound Solutions (FICESS). A meeting was held with the Technical Advisory Committee on April 30<sup>th</sup>, 2003 in Boston, MA. The minutes of the meeting have been written and distributed to TAC members. A draft of a proposal to obtain funds for the FICESS conference was provided to Mr. John Schert for submission to the National Science Foundation.