

QUARTERLY PROGRESS REPORT
July 1, 2003 to September 30, 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

“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 has been sent to the Center.

RCRA Sponsored Project

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

Project Administration

1. The final report for this project has been drafted. The title of the report is, “Management and Disposal Options for CCA-Treated Wood Waste.” This report will be revised shortly after the FICISS conference scheduled for February 2004.

“YEAR 7” Research

Title: Extent of CCA-Treated Wood Used for Commercial Mulch
(July 1, 2002 to June 30, 2004)

Project Administration

1. The project budget has been increased by an additional \$10,000 for a total of \$30,000. The project end date was extended to June 30, 2004. The purpose of the additional \$10K was to develop an education program for use of the chemical stains for identifying CCA-treated wood.
2. A subcontract in the amount of \$3,000 has been requested for U.Florida for Dr. Townsend’s contribution to the additional work associated with the education program for the stains.
3. TAG members were contacted via fax, email, and telephone to determine whether or not they wanted to continue participating in the TAG. An updated list has been developed and has since been posted on the web.

4. Presentations at several professional meetings were made in lieu of a second TAG meeting for this year. Minutes of these meetings were sent to the FCSHWM.

Research Activities

1. Sample collection for this project has been completed. Over 35 samples have been collected. All of the samples except for 1 have been ashed.
2. To date laboratory results for 22 samples have been completed, 20 of these samples are mulch samples. One is a soil wood blend and one was composed of refuse derived fuel. Of the 20 mulch samples, 7 were non-colored and 13 were red colored. Of the 7 non-colored samples, only one contained CCA (approx 0.7% by weight). Of the 13 red colored samples, 6 contained CCA (between 3 and 12%). The arsenic concentrations of these red colored mulch samples ranged from 70 to 200 mg/kg. All of the red mulches that had CCA also contained plywood.
3. Questionnaires have been sent out to 100 cogeneration facilities and 300 wood processing/C&D facilities to inquire about sorting practices for wood waste. To date a total of 38 questionnaires (3 cogen and 35 C&D) have been returned.
4. A total of 12 stain packages have been distributed to date. We are currently waiting for copies of a signed materials transfer agreement from 6 additional facilities.

“YEAR 8” Research

Title: Environmental Impacts of CCA Contaminated Mulch
(July 1, 2003 to October 31, 2004)

Research Activities

1. Sample collection for phase I has been completed. An additional 57 samples have been collected (beyond the samples collected for the year 7 project). These samples have been collected from throughout Florida (Pensacola, Jacksonville, Gainesville, Tallahassee, Orlando, West Palm Beach and the Florida Keys).
2. A new larger muffle furnace was purchased for the project in an effort to process samples at a faster rate. This furnace has since been received, installed, and is currently in use.
3. A prototype mulch leachate-collection vessel has been build for phase II of the project. The red colorant for phase II has been received. Samples of untreated and CCA-treated wood waste from a local wood waste recycling facility were collected on September 30, 2003. These samples will be utilized for the mulch leachate collection system.

Project Administration

1. Account number for the project has been obtained using the “guarantee” option at the University since the primary contract has not yet been executed.
2. A subcontract for Dr. Townsend’s portion of the work has been initiated.
3. Three UM students and one UF student have been assigned to this project. The UM students include Gary Jacobi who will be responsible for ashing the samples, Laura Lugo who will be responsible for describing the samples in terms of plywood content and size distribution, and Tomoyuki “Shiba” Shibata who will be responsible for the mulch leaching studies. Brajesh Dubey is the UF student who will be running the analysis on the ash samples and who will be responsible for the SPLP results.

Information Dissemination

1. Helena Solo-Gabriele provided a Powerpoint presentation on sorting methods for CCA-treated wood before the FDEP Rule Development Workshop held on July 29, 2003 in Orlando, Florida. Tim Townsend also participated in the meeting and answered several questions from the audience. The primary purpose of this presentation was to inform the audience of the availability of the PAN indicator stain for identifying copper within treated wood. All packets of the stain brought to the meeting were distributed.
2. Helena Solo-Gabriele and John Schert met with the Consumer Products Safety Commission (CPSC) in Bethesda, Maryland on August 13, 2003. The purpose of the meeting was to inform the CPSC of prior and on-going research activities by the research team.
3. Helena Solo-Gabriele presented the results of the team's research at the national Resource Conservation and Recovery Act (RCRA) Conference in Washington D.C. on August 13, 2003. Bill Hinkley of the FDEP also presented and Tim Townsend and John Schert were also present at the conference. The presentation focused on describing the results from the research team's work on disposal-end management of CCA-treated wood. Much of the discussion during this meeting focused on Florida C&D groundwater data.
4. Helena Solo-Gabriele and Jenna Jambeck participated in the "Marketplace of Ideas Session" on August 14, 2003 during the National RCRA Conference. This session was in the form of a group discussion led by Ross Elliot of U.S. EPA's Office of Solid Waste. The focus of this session was on disposal issues surrounding CCA-treated wood.
5. Helena Solo-Gabriele met with Nader Elkassabany, Norm Cook, and Jack Hausenger of the U.S. EPA Office of Pesticides on August 15, 2003 in Washington D.C. The discussions during this meeting focused on in-service and disposal issues surrounding CCA-treated wood. The upcoming FICCESS conference was also discussed at this meeting.
6. Helena Solo-Gabriele provided a presentation before the Pesticides Review Council in West Palm Beach, FL on August 20, 2003. The presentation focused on the results documented in the report titled, "Quantities of Arsenic within the State of Florida." Many questions were asked about the results, in particular with respect to the results associated with MSMA use on golf courses.
7. Timothy Townsend provided a presentation at the SWANA Florida Chapter Summer Conference in Jacksonville, FL on August 21, 2003. The presentation was titled, "Preliminary Analysis of Leachate and Groundwater Quality Impacts of E-Waste and CCA-Treated Wood." The purpose of this presentation was to examine what is known (and not known) about the impacts of discarded electronic devices (E-Waste) and CCA-treated wood on landfill leachate and groundwater.
8. Many interviews have been provided to various news organizations. Helena Solo-Gabriele was interviewed by the following individuals: a) Paola Elorza from Channel 23 Miami (Spanish) on August 20, 2003, b) David Fleshler of the Sun Sentinel (Broward County) Newspaper on September 5, 2003, c) Bill McGinty of Channel 10 in Tampa on April 18, 2003 with a follow up on September 10, 2003, and d) Jack Fink of TV Channel WESH in Orlando on July 21, 2003 with a follow up on July 29, 2003, and e) Art Jacobson of the Pinecrest Tribune Newspaper (Miami Sub-urb Newspaper) on August 21, 2003.

9. The web site, www.ccaresearch.org continues to be updated.

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. Sampling of playgrounds and children has been initiated. Two children have participated in the study to date.
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). Drs. Solo-Gabriele and Townsend continue to participate in conference calls and continue to correspond with the Technical Advisory Committee.