

QUARTERLY PROGRESS REPORT
October 1 to December 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 (6 month extension requested)

“YEAR 5” Research

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

Project Administration

1. A six month no cost extension has been requested for this project. The final report for this project has been posted on the web. The title of the report is, “Quantities of Arsenic Within the State of Florida.” This report is currently being reviewed by the TAG.

Research Activities

1. Efforts have been re-initiated to obtain groundwater samples from C&D landfills. The results from this task will be reported as part of the “year 6” (9/1/01 – 11/30/02) project. These groundwater samples will be analyzed for arsenic species. Landfills identified for sampling are those where an arsenic concentration greater than 10 ug/L was measured sometime during the June 1998 to December 2000 time period. There have been 26 landfills that have been identified for sampling. Of these 26, 3 are currently undergoing enforcement action with the FDEP and another is under Consent Agreement with Dade County DERM. These 4 (3+1) C&D landfills will not be sampled. The goal is to sample at 22 landfills. To date, groundwater from 18 C&D landfills have been sampled and analyzed. The remaining groundwater samples (from the remaining 4 facilities) will be collected during regularly scheduled sampling events for FDEP compliance purposes.

“YEAR 6” Research

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

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 arsenic and chromium speciation data have been summarized in an internal report.
2. Several additional lysimeter samples were obtained and analyzed for arsenic species.

Information Dissemination

1. Reprints have been received for the manuscript titled, "Pilot Scale Evaluation of Sorting Technologies for CCA-Treated Wood Waste." A reprint was sent to John Schert within the packet for the TAG meeting.
2. Dr. Timothy Townsend drafted a manuscript focusing on the results of the mulch study. Reviews from this manuscript have been received. Comments have been since addressed and the updated manuscript has been sent back to the journal.
3. Dr. Timothy Townsend drafted a manuscript focusing on the results of the deck study. This manuscript has been submitted to a journal for peer review and comments have been received. The team is currently working on addressing those comments.
4. Dr. Helena Solo-Gabriele drafted a manuscript focusing on the results from the Sarasota County on-line sorting study. This manuscript has been submitted to a journal for potential publication
5. The web site, www.ccaresearch.org continues to be updated.
6. Dr. Helena Solo-Gabriele provided two presentations during this reporting period. The first was titled, "Regulations and Environmental Aspects Associated with CCA-Treated Wood." This presentation took place during November 2002 during the Environmental Science Seminar at Broward Community College, Davie, FL. The second presentation was titled, "CCA-Treated Wood: Human Health an Environmental Effects." This presentation took place during October 2002 during the conference called "Mealey's Construction Defects in 2002: EIFS, CCA Treated Wood and Mold" which was held in Atlanta, GA.

"YEAR 7" Research

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

Research Activities

1. Sample collection for this project has been completed. Over 20 samples have been collected.
2. Samples are currently being ashed at the University of Miami within a small muffle furnace. So far 6 samples have been ashed.

Project Administration

1. An additional undergraduate student, Gary Jacobi, has been hired to work on the ashing of the samples.

RCRA Sponsored Project

Titled: Management and Disposal Options for CCA-Treated Wood Waste
(Contract Not Yet Executed)

Project Administration

1. This project has not yet been executed. An account number has been established at

- the University of Miami using another account as a “guarantee.”
2. A subcontract for Dr. Townsend’s portion of the project has been prepared. This subcontract will be circulated for signatures once the prime contract is awarded to U.Miami.

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. Dr. Yong Cai is currently processing marine organism samples.
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. A finalist playground has been chosen for study. Currently we preparing for the children’s exposure portion of the study.
3. We are in the process of finalizing the report for the “year 4” study. One of the issues being addressed is the analysis of original retention levels for the wood used in this study. Wood samples have since been analyzed by 4 additional laboratories and the report is in the process of being updated.
4. Drs. Solo-Gabriele and Townsend have been assisting with the planning of a conference tentatively called, “Preservative-Treated Wood: Environmental Impacts During In-Service Use and Disposal.” This conference is tentatively scheduled for February 2004. The conference will be sponsored by the Florida Interdisciplinary Center for Environmentally Sound Solutions (FICISS).