

QUARTERLY PROGRESS REPORT
July 1 to September 30, 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.

Research Activities

1. Efforts have been re-initiated to obtain groundwater samples from C&D landfills. These 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 one other had all of its monitoring wells removed. These 4 (3+1) C&D landfills will not be sampled. The goal is to sample at 22 landfills. To date, groundwater from 10 C&D landfills have been sampled and analyzed. Currently sampling boxes have been sent to another 4 C&D facilities for the month of October. The remaining groundwater samples 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.
3. Helena Solo-Gabriele has completed the first draft report focusing on arsenic reservoirs within the State of Florida. This report is currently being reviewed by Timothy Townsend.

Information Dissemination

2. The manuscript titled, "Pilot Scale Evaluation of Sorting Technologies for CCA-Treated Wood Waste" has been published within *Waste Management and Research*, 20: 290-301. Reprints of the journal article should be arriving shortly.
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.
4. Dr. Timothy Townsend drafted a manuscript focusing on the results of the mulch study. This manuscript has been submitted to a journal for peer review.
5. Dr. Helena Solo-Gabriele drafted a manuscript focusing on the results from the Sarasota County on-line sorting study. This manuscript is currently being internally reviewed by Drs. Townsend and Hahn.
6. The web site, www.ccaresearch.org continues to be updated.
7. Dr. Helena Solo-Gabriele participated in an international symposium titled, "Handling of Impregnated Waste Wood." The symposium was held in Silkeborg, Denmark on September 25, 2002.

"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 recently initiated.
2. Kevin O'Donnell from Florida Power and Light was contacted concerning the "borrowing" of the FPL muffle furnace. Kevin agreed to permit the research team to utilize the FPL muffle furnace.

Project Administration

1. The contract for the project titled, "Extent of CCA-Treated Wood Used for Commercial Mulch" has been executed.
2. A U.Miami account has been established for this project.
3. Two undergraduate students, Michael Laas and Rogelio Vega, have been trained and hired for the project.

COURTESY REPORT For Complimentary Studies

Project Administration

1. Dr. Solo-Gabriele continues to work on the project funded by the National Institutes of Environmental Health Sciences (NIEHS) titled, "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 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. To date, 10 CCA-treated playgrounds have been visited in Miami-Dade County. Among these 10, 3 finalist playgrounds were identified. Soil samples from 2 of these 3 were collected in an effort to identify the 1 playground that will be the focus of this study.
3. A proposal titled, "Management and Disposal Options for CCA-Treated Wood Waste" was submitted for potential funding directly through FDEP. A letter of "intent to fund" has been received through the Florida Center.
4. The final report for the "year 4" study has not been made final-final. The title of the report is, "Leaching and Toxicity of CCA-Treated and Alternative-Treated Wood Products." The primary problem in finalizing this report is due an "errata" that was issued by the company (Timber Products Inspections) that was contracted to analyze the wood samples using XRF methods. Due to this "errata", new wood sawdust was generated from the wood used during experimentation. This sawdust was split into three sub-samples. One sub-sample has been sent and analyzed by the Southern Pine Inspection Bureau using XRF methods. The second split has been analyzed using ICP by Dr. Townsend's laboratory. The third split is waiting analysis at the University of Miami laboratory. These samples will be analyzed once the newly purchased AA has been installed at U.Miami.