

QUARTERLY PROGRESS REPORT
January 1 to March 31, 2001

PROJECT TITLE: Fate of CCA-Treated Wood

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, 2001

“YEAR 3 SUPPLEMENTAL” Research

Title: New Lines of CCA-Treated Wood Research
(April 1, 1999 to November 30, 2000)

Research Activities

1. The draft copy of the final report for the “year 3 supplemental” project has been completed. The final version has been posted on the web. Paper copies have been made and will be distributed shortly to TAG members and to those who provided written comments on the report. A paper copy of the finalized version has been mailed to the FCSHWM.

“YEAR 4” Research

Title: Fate of CCA-Treated Wood
(April 1, 2000 to June 30, 2001)

Research Activities

Leaching of Alternative-Chemical Treated Wood

1. The last sample of alternative-chemical treated wood has been received and its treatment has been deemed acceptable. This sample has since been split with ½ going to U.Florida and the other ½ going to U.Miami.
2. Leaching experiments have been initiated. Leaching tests have been completed for the CCA-treated wood, untreated wood, ACQ-treated and CC-treated wood samples. Leaching tests for CBA- and CDDC-treated wood will begin shortly once the analytical methods have been fully developed.

Arsenic Speciation in Groundwater Near Landfills

3. Samples have been collected and analyzed from landfills in the Dade, Broward, and Palm Beach Counties. Furthermore, a few additional samples have been analyzed from landfills located further north. All samples have been analyzed for dissolved arsenic species. Methods are currently being refined for particulate arsenic analysis.
4. A list of all C&D landfills showing detectable levels of arsenic has been obtained through the Florida Dept. of Environmental Protection. The research team is currently in the process of requesting permission to collect samples from these facilities. A schedule for sample collection will be developed for the summer.

Miscellaneous Projects

5. Preliminary research to develop an overall mass balance for arsenic (from all reservoirs in Florida) was initiated. It was quickly learned that this research will require a considerable amount of time and effort and therefore it was included as a task within a pre-proposal submitted to the FCSHWM.
6. Work with the new stain that is specific to arsenic has been initiated. Preliminary results indicate that it can distinguish between CCA versus ACQ, CC, CBA, and CDDC treated wood. Currently the research team is focusing on changing the formulation so that it soaks into the wood quicker.

Information Dissemination

1. A TAG meeting was held on Thursday, January 11, 2001 in Miami, Florida. The meeting was attended by between 40 and 50 individuals. The minutes of the meeting as well as copies of the Powerpoint presentations have been posted on the web.
2. The final copy of the "year 3 supplemental" report has been posted on the web page. Due to the press coverage concerning the deck study, many people have called requesting information concerning how to download this report.
3. The research team has received a large number of phone calls from reporters, local regulators, and concerned individuals since the press coverage in the St. Petersburg times. Various members of the research team have been interviewed by telephone and by camera interview on several different occasions. References to the research have since been publicized in several newspapers throughout the State.
4. A manuscript was submitted for potential publication within a peer-reviewed journal. The title of the paper was "Characteristics of CCA-Treated Wood Ash." The authors of the paper included Helena Solo-Gabriele, Tim Townsend, Brian Messick, and Vandin Calitu.
5. The paper titled, "Pilot Scale Evaluation of Sorting Technologies for CCA Treated Wood Waste" authored by Monika Blassino, Helena Solo-Gabriele, and Tim Townsend is still under review.
6. Naila Hosein provided a poster presentation titled, "Environmental Effects of CCA-Treated Wood" at the University of Miami Student Creativity Forum which was held during March 2001.
7. An abstract was submitted for consideration by the SWANA Special Waste Conference scheduled for December 5-7, 2001 in Orlando, Florida.

"YEAR 5" Research

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

Project Administration

1. The contract for this project has been executed between the FCSHWM and U.Miami. Currently the sub-contract between U.Miami and U.Florida (Townsend) is currently being circulated for signature.
2. The proposal for this project has been posted on the web.

Research Activities

1. Toxicity tests have been completed for the untreated, CCA-, and ACQ- treated wood samples except for the yeast assay. Microtox and metplate are currently being run for CC-treated wood. Toxicity assays for CBA- and CDDC-treated wood will begin shortly.
2. The concrete pad and support posts for the lysimeters have been poured and installed. Arrangements have been made to for the donation of the treated wood that will be used in the lysimeters. The well installation drill tailings from the New River Bioreactor have been collected for the MSW/CCA lysimeters.

COURTESY REPORT ON THE INNOVATIVE RECYCLING GRANT

Title: On-Line Sorting Technology for CCA-Treated Wood

1. The web site for this project (http://www.eng.miami.edu/~hmsolo/sarasota/index_sara.htm) continues to be updated.
2. The shelter (including the control room) has been constructed and the conveyor system has been installed.
3. The laser and the spectrophotometer portion of the LIBS detector system have been interfaced. A more powerful laser was borrowed due to the inability of the first laser to provide a strong enough signal. The borrowed laser works well.
4. A Sarasota team meeting was held on February 27, 2001 in Sarasota County to update team members on the progress of the project to date.

The next Sarasota team meeting has been scheduled for May 15, 2001. The next TAG meeting scheduled for July 9th will be held in Sarasota County.