

QUARTERLY PROGRESS REPORT
July 1, 2005 to September 30, 2005

PROJECT TITLE: Arsenic-Specific Stain for Identifying 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., P.E.

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

COMPLETION DATE: October 31, 2005

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 in the near future and will include information obtained from the FCES conference held February 2004.

"YEAR 8" Research

Title: Environmental Impacts of CCA Contaminated Mulch
(July 1, 2003 to May 15, 2005)

Research Activities

1. The draft of the final report has been posted on the web at <http://www.ccaresearch.org/publications.htm> or more specifically the main text is available at http://www.ccaresearch.org/final_mulch_text_m18.pdf. The comment period for this report was open until August 30, 2005. The report will be finalized shortly thereafter.

"YEAR 9" Research

Title: Arsenic-Specific Stain for Identifying CCA-Treated Wood
(July 1, 2004 to October 31, 2005)

Project Administration

1. The main contract for this project was executed during the last reporting period. A sub-contract was drafted between U.Miami and U.Florida. There were problems with the subcontract and the Center is currently working on reducing the amount of the contact by the subcontract amount (\$10,000). These funds will then be provided to Dr. Townsend of U.Florida.
2. A six-month no cost extension was requested and granted for this project.
3. Claire Cornillier of the Centre Technique du Bois et de l'Ameublement (Technical Center for Wood and Furniture) in Bordeaux, France received a research award from the International Research Group on wood preservation for a short scientific study (1 week) with the research team during the week of August 15th. Helena Solo-Gabriele hosted her visit which consisted of teaching her wood identification methods and her participation in the TAG meeting. Her mission report has since been posted on the web site.

4. A technical awareness group (TAG) meeting was held on August 18, 2005 at the Town of Medley Town hall. The minutes and Powerpoint presentations from that meeting have been posted under the “administration” link at www.ccaresearch.org.

Research Activities

1. An arsenic specific stain has been developed. The stain has been tested with wipes, ash, and wood. Detection limits for arsenic and phosphate have been determined.
2. The research team has been informed in writing that the University plans to pursue a patent for the stain.
3. Amy Omae has started to write the first draft of the final report for this project.

Information Dissemination

1. The web site: www.ccaresearch.org continues to be updated.
2. An article written by H. Solo-Gabriele, T. Townsend, B. Dubey, and G. Jacobi was published in *C&D Recycler*. This article has since been published in the September/October issue and the research team is currently working on getting an official citation for this article. Reprints have been ordered.
3. Helena Solo-Gabriele provided two presentations at the Second European Cost E31 Conference, Management of Recovered Wood Strategies Towards a Higher Technical Economical and Environmental Standard in Europe held in Bordeaux France from September 28 to October 1, 2005 in Bordeaux, France. One presentation was part of the keynote session and was titled, “Wood Waste Management Practices in the US.” The second presentation was part of the regular sessions and was titled, “Management of Wood Treated with Metals-Based Preservatives.”
4. The research team has published a paper within the proceedings of the Second European Cost E31 Conference, Management of Recovered Wood Strategies Towards a Higher Technical Economical and Environmental Standard in Europe held in Bordeaux France. The citation for this proceeding is:
Solo-Gabriele, H., Townsend, T., Jacobi, G., Fernandes, J., Lam, E., and Dubey, B., 2005. Wood Waste Management Practices in the U.S. with Emphasis on the management of Wood Treated With Metals-Based Preservatives. *Proceedings of the Second European Cost E31 Conference, Management of Recovered Wood Strategies Towards a Higher Technical Economical and Environmental Standard in Europe*. Conference Held in Bordeaux, France. Published by University Studio Press, Thessaloniki, Greece.

COURTESY REPORT For Complimentary Studies

Project Administration

1. Tim Townsend and Helena Solo-Gabriele continue to work on an edited book titled, “Environmental Impacts of Preservative-Treated Wood.” All of the chapters have been drafted and sent to CRC Press for page formatting.
2. Helena Solo-Gabriele and Tim Townsend continue to work on the project funded by the

Town of Medley and the FDEP Innovative Recycling Grants Program. The title of the proposal is, “Augmented Sorting of Recovered Wood Waste Using Stain and X-ray Technologies.”

3. Helena Solo-Gabriele and Martin Grosell of the University of Miami Marine School and Yong Cai of Florida International University are collaborating on a project focusing on toxicity testing of leachate from wood treated with chromated copper arsenate (CCA). This project will evaluate the effects of salinity on the toxicity of CCA-treated wood to a fish species.
4. Helena Solo-Gabriele and Tim Townsend are currently working with C.Y. Wu in the submission of a research proposal to NSF.