

**State University System of Florida  
Florida Center for Solid and Hazardous Waste Management  
PROJECT SUMMARY**

**TITLE:** Update of Recommended Management Practices Guide for Removing Hazardous Materials from Demolition Projects

**PRINCIPAL INVESTIGATORS:** Timothy Townsend, Ph.D.

**AFFILIATION:** University of Florida, Dept. Environmental Engineering Sciences

**PROPOSED PROJECT DATES:** September 1, 2002 –May 31, 2003

---

**OBJECTIVES:** The objective of the project is to take an existing guide on management of hazardous materials encountered during demolition projects and to update the guide to include additional pertinent topics and new information.

**METHODOLOGY:** A review team will be formed to provide input on the document revision process. A copy of the guide and a list of proposed revisions will be mailed to the review. A conference call will be held to discuss the proposed revisions. Currently planned additions to the document include: 1) information on asbestos, 2) information on treated wood, 3) modifications to discussion on lead based paint to reflect recent rules and policies, and 4) an update of contact list. The document will then be revised. Information needed for this revision will be gathered from existing literature, site visits, and discussion with professionals involved in the issue. The revised guide will be sent to the review team and another conference call will be held. The document will then be finalized and submitted to the Center (including an electronic copy for posting on the web). The primary student working on this project will be Ms. Jenna Jambeck, a Ph.D. candidate with much experience on C&D debris issues.

**RATIONALE:** The management of hazardous materials from demolition projects is important for the safety of the demolition crew, the surrounding population, and the environment in general. The existing document addressed RCRA hazardous waste issues regarding certain components in buildings being demolished (e.g. mercury thermostats, PCB ballasts). The investigator has received several requests for an updated guide that included the issues of asbestos. The revision of the guide to include asbestos and several other timely issues (treated wood, lead based paint) would make the guide all the more valuable and would help those involved in this issue.

**ACCOMPLISHMENTS:** The investigator's research team created the first guide, and has since been involved in a number of projects that relate to demolition debris and the hazardous materials encountered. The investigator recently developed a 3-day short course for the Solid Waste Association of North America and the Construction Materials Recycling Association on C&D debris management (CMRA). The investigator also recently developed a web site on asphalt shingle recycling for the CRMA and EPA region 5. Both of these projects required the investigator to research asbestos issues and lead-based paint issues relating to demolition. The researcher is also presently involved in work pertaining to CCA-treated wood.

# **UPDATE OF RECOMMENDED MANAGEMENT PRACTICES GUIDE FOR REMOVING HAZARDOUS MATERIALS FROM DEMOLITION PROJECTS**

## **Introduction**

In 1999, the investigator prepared a document entitled “Recommended Management Practices for the Removal of Hazardous Materials from Buildings Prior to Demolition.” This document was prepared as a deliverable to a grant provided by the Florida Center for Solid and Hazardous Waste Management (funds originated from the FDEP). This document was disseminated throughout the State and is currently available for download on the web<sup>1</sup>. The National Association of Demolition Contractors (NADC) printed several hundred copies of the guide and sent them to all of its members. Many individuals and organizations throughout the country have requested permission to use this guide. Please see Appendix F for the latest version of this guide.

Since its publication, the investigator has received a number of inquiries as to whether an updated addition could be produced. The requested updates have focused on the inclusion of asbestos as part of the document. Asbestos is not a hazardous waste under RCRA, and thus was not part of the original scope of work. The persons requesting the inclusion of asbestos have been primarily FDEP district personnel.

In this proposal, the investigator proposes to update the document to include information on those requirements to handle and/or remove asbestos from buildings prior to demolition. Other sections will be updated as appropriate. Examples of other changes include:

- ❑ Update on recent lead-based paint regulatory activity that affects demolition
- ❑ Added discussion of some of the hazardous materials only encountered in larger demolition projects (industrial switches, hydraulic fluid in elevators, refrigerants in cooling systems)
- ❑ Added discussion of treated wood
- ❑ Update of state companies who accept these materials

## **Objectives**

The objective of the project is to take an existing recommended management practices document on removing hazardous materials during demolition projects and to update it to include additional important information.

## **Methods**

A review team will be formed. The review team will consist of individuals from regulatory agencies as well as those who represent potential users of the guide (e.g. demolition contractors).

---

<sup>1</sup> <http://www.ees.ufl.edu/homepp/townsend/Research/DemoHW/Maindemo.html>

When the project begins, a copy of the existing document will be sent to the review team along with a list of suggested changes that will be made. The review team will then meet via conference call and the needed changes will be discussed. The investigators will then gather information needed and revise the document. Information pertaining to the new areas will be collected from a variety of sources including:

- ❑ Published literature (in print and on the web)
- ❑ Discussions with regulatory personnel
- ❑ Discussions with industry professionals

Site visits will be made to gather information and to take photos for inclusion in the updated manual. The draft manual will be submitted to the review team and again, a conference call will be held to discuss the status of the guide and to get further input on the structure of the revised document. A project period of 9 months is proposed.

### **Timeline and Milestones**

The investigator proposes September 1, 2002 as a start date for the project, with a completion date of May 31, 2003 (a 9-month project). The following table presents the project timeline.

Task	2002				2003				
	S	O	N	D	J	F	M	A	M
<b>Invite and Form Review Team</b>	X								
<b>Mail Out Existing Guide to Review Team with Proposed Changes and Request for Comment</b>	X								
<b>Review Team Conference Call</b>		X							
<b>Prepare Document</b>		X	X	X	X	X			
<b>Draft Revised Document Sent to Review Team</b>						X			
<b>Review Team Conference Call</b>							X		
<b>Document Revisions</b>							X	X	
<b>Final Document Submitted</b>									X

### **Deliverables**

Deliverables will include a draft document for review and the final document. The document will be submitted in electronic form for posting on the Center’s website. While Technical Awareness Groups (TAGs) are normally formed for Center research projects, the investigator proposes that a TAG not be formed for the project. Instead, a review team, as outlined in “Methods” above will be formed. The review team will correspond by mail and conference call. The proposed composition of the review team is included in Appendix E.

### **Expected Technical Results**

The development of an updated guide for managing hazardous materials at demolition sites is the expected technical result.

### **Anticipated Benefits**

The document will provide a complete guide to dealing with hazardous materials encountered in demolition projects. The document will provide a source of information that is absolutely needed by those conducting or regulating these activities.

### **Related Work**

The investigator is involved in a number of C&D debris and hazardous waste related projects. The investigator recently developed a 3-day short course for the Solid Waste Association of North America (SWANA) and the Construction Materials Recycling Association (CMRA) on C&D debris management. The investigator also recently developed a web site on asphalt shingle recycling for the CRMA and EPA region 5. Both of these projects required the investigator to research asbestos issues and lead-based paint issues relating to demolition. Other current research pertinent to this guide includes research projects on the management of CCA-treated wood and the quality of leachate from C&D debris landfills.

Other states have developed similar guidance documentation (e.g. Minnesota). The US military has also published several fact sheets regarding this issue. The investigator is not aware of any other existing document (or one that is in preparation) that addresses all those issues proposed to be included here (in the depth proposed). Numerous agencies and demolition contractors through out the country use the current guide.

### **Possible Followup**

Possible follow up work might include the development of additional versions of the guide. Another possible follow up would be the development of an on-line interactive guide.