

Preface

The Gulf Coast Hazardous Substance Research Center (GCHSRC) was created in the U.S.A. by Section 118 (1) of the Superfund Amendments and Reauthorization Act (SARA) for the purpose of "conducting research to aid in more effective hazardous substance response and waste management throughout the Gulf Coast." For each of FY 89 and FY 90, \$1.5 million was appropriated for GCHSRC as part of the EPA funding bill. Texas Senate Bill 39 (70th Session) created a parallel state of organization for the four Texas universities in the consortium. For the 1988-89 and 1990-91 biennium a total of \$2.4 million (\$600,000 per year) were allocated for the Texas Center by the Texas legislature.

The Center's effort is concentrated in the areas of waste minimization and alternate technology development. This work includes all types of process modifications, modernization, and recycle/reuse approaches, while the technology program ranges from efforts on the use of genetically manipulated organisms for biological treatment to thermal destructions devices. A major interuniversity, interdisciplinary effort on understanding the mechanisms of solidification/stabilization has been a part of the program since the inception of the Center. A small portion of the program is devoted to an effort to support and enhance the application of technology. This activity is presently ongoing in the areas of geology, sociology, and microbiology.

The research is done by the faculties of the member universities on their campus. Proposals for research projects within the framework of the Center's program are submitted by faculty members for review by the Science and Industry Advisory Committees. These committees advise the Center Director on the technical and scientific quality of the proposals and assist the Director in selecting the projects which will make up the program. Multi-university, interdisciplinary proposals are favored to provide an integrated approach to problems.

At this time the Center has some 50 projects in progress in a joint federal/state effort at the Texas Universities and a federally supported research activity at Louisiana State University, Mississippi State University, The University of Alabama, and the University of Central Florida.

Each year during February as a part of its technology transfer program GCHSRC hosts, with sponsorship by Chemical Waste Management, Inc. and Sandoz Crop Protection, Inc., a symposium on a topic in the hazardous waste management field and which is within the research mandate of the Center is held. The 1989 subject was incineration with particular emphasis on trial burns, instrumentation, and operations. Included as part of the symposium is a poster session presenting all the research in progress within GCHSRC.

These Proceedings are the papers and summaries of the posters presented

at Gulf Coast Hazardous Substance Research Center's 1990 symposium on the Mechanisms and Applications of Solidification/Stabilization of hazardous wastes.

From its establishment, the GCHSRC has engaged in research on solidification/stabilization, concentrating primarily on the understanding of the mechanisms involved. This work was initiated in recognition of the pressing need, in the United States in particular, for methods for handling more economically small quantities of hazardous wastes dispersed throughout the soil over wide areas, i.e. the Superfund site. This symposium, as with the others in the series, served to summarize the present state of the subject while reviewing the outlook for the future.

The next GCHSRC symposium will be held again at Lamar University in February 1991 and focus on the subject of 'bioremediation'.

WILLIAM A. CAWLEY
*Gulf Coast Hazardous
Substance Research Center
Beaumont, TX, U.S.A.*

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