

GUIDELINES FOR THE PREPARATION OF WHITE PAPER

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Geoenvironmental Research Experience (list projects in progress or completed within the past 5 years):

Geotechnical Characterization of Biosolids, Metropolitan Water Reclamation District of Greater Chicago (MWRDGC)

3D slope stability analyses for landfills, Earth Tech

Assessment of mechanical damage to geomembrane liners, Waste Management, Inc.

Stabilization of sludges and dredge spoils, ENTACT, Earth Tech and EMCON

Remediation of Petroleum Contaminated Soils Using Soil Flushing, Earth Tech

Geoenvironmental Teaching Experience (list related courses, including short courses, taught within the past 5 years):

Design of Landfills and Impoundments, Graduate Course at UIC, Guest Lectures

Geoenvironmental Consulting Experience (list major projects only):

Environmental Site Characterization and Risk Assessment for Terminal 6 at O'Hare International Airport, Bechtel Infrastructure.

Numerous Phase I and Phase II Environmental Assessments.

Site Characterization and Risk Assessment for Chicago Shoreline Storm Damage Reduction Project, Montrose North, U.S. Army Corps of Engineers and Illinois Constructors Corporation

Construction Quality Assurance (CQA)-K.I. Sawyer Airforce Base, Michigan, North Shore Sanitary District, Illinois, Northern Indiana Public Service Company, Indiana.

Site Characterization and Remedial Actions at gas stations and highway right-of-ways.

Permeability testing of soil-bentonite and cement-bentonite slurries.

Appraisal of Geoenvironmental Research, Education and Practice (limit to 1-2 pages):

Public awareness, legislation and regulatory requirements have propelled the field of geoenvironmental practice to new heights in the recent past. The challenges faced by the practicing community required the support of research community and academia to study and develop methodology. The need to adequately staff the practicing community and research establishments has led to the birth and subsequent growth of the Masters level programs in geoenvironmental engineering at several universities. In each of these areas, the progress achieved thus far is commendable. However, the need to optimize and find economical ways to remediate sites and prevent future contamination has outstripped the pace of growth in these areas. Awareness of climatological changes and recent global agreements such as the Kyoto Protocol will have a cascading effect and place serious demands on the abilities of the practicing and research communities for time to come.

Perspective on Emerging Geoenvironmental Issues and Technologies (limit to 1-2 pages):

The greatest issue for the geoenvironmental community to achieve is to remediate sites with the least cost. This is borne out by the fact that there are even numerous Superfund sites (1233 sites at the end of fiscal year 2002 according to GAO) that still await remediation, not to mention sites of lesser significance. Technologies to rapidly assess and remediate less intrusively have yet to be developed or perfected. Methodologies to re-use "waste" materials in benign applications should be developed. In order to assess their applicability and long-term performance, new methods in testing and quality control should be developed as the traditional geotechnical assessment may not be adequate, relevant or applicable. Even in areas such as landfill design where a level of maturity in understanding and design has emerged, there still is a need to re-invigorate research in the areas of fundamental processes that liner systems undergo, incorporation of other "waste" materials to conserve resources, and prediction of long-term performance in conjunction with end uses. Practicing community should work with regulatory agencies to try out new methods and materials. Research community should forge relationships with industry to comprehend, develop and implement technologies at a greater speed. In order to fully prepare the practicing and research communities of future, undergraduate level curriculum should give importance to geo-environmental engineering. An introductory course that provides an overview of all areas of geo-environmental engineering is required.