Wednesday, June 11, 2003

Environmental and Engineering

Dinner Meeting

Rudy Lechner's • 2503 S. Gessner (½ block north of Westheimer) Social 5:30 p.m., Dinner 6:30 p.m.

by Faizur Khan, Clean Harbors, Houston, Texas

Cost: \$25 Preregistered members; \$30 Nonmembers & Walk-ups Make your reservations now by calling 713-463-9476 or by e-mail to Joan@hgs.org (include your name, meeting you are attending, phone number, and membership ID#).

Alternative Final Covers for Landfills

Final covers for landfills are used to reduce the quantity of water that percolates into closed landfills and contaminated soils. Reducing the volume of percolating water reduces both the rate of leachate generation and the risk of groundwater contamination. EPA regulations prescribe a final cover design based on resistive principles (e.g., low-permeability clay, geomembranes). These covers are commonly used in most landfills and are generally referred to as "conventional" covers. Alternative covers are also permitted provided the alternative cover is equivalent to conventional cover.

There is a growing interest in alternative landfill cover designs because these covers are perceived to be less expensive to construct and maintain than conventional covers while providing long-term protection of human health and the environment. USEPA has initiated an Alternative Cover Assessment Program (ACAP) to address growing interest in innovative technology. ACAP is currently focusing on an evapotranspiration cover (ET) that utilizes plants to cycle water from the soil profile to the atmosphere.

Under ACAP, test facilities have been constructed at 12 sites across the United States to assess the hydrological performance of

alternative and conventional covers. This presentation will focus on the ACAP program and its preliminary findings.

Biographical Sketch

FAIZUR KHAN has over 20 years of engineering experience in waste disposal facility permitting, design, construction, and closure. Mr. Khan worked in the consulting industry (PSI and Woodward Clyde) for 10 years prior to working for waste treatment and disposal facilities (Clean Harbors). Mr. Khan has provided cost savings and results-oriented solutions to many



treatment, storage, and disposal facilities. Mr. Khan provides direction to the staff in the creation of landfill design/construction drawings, analyses, specifications, bid documents, and CQA documents. Professional highlights include project management experience on multi-million dollar projects including cost and schedule tracking, resource allocation contracting, and regulatory agency interference for clients. He is a Registered Professional Engineer in the states of CA, CO, LA, TX, OK, NE, NJ, MN, SC, UT, and ND.