
ENVIRONMENTAL/ENGINEERING GEOLOGISTS

HGS ENVIRONMENTAL/ENGINEERING COMMITTEE LUNCH & DINNER MEETINGS—APRIL 14, 1993

Topic (same at both luncheon and dinner):
"Vitrification of Hazardous Wastes Using A
Mobile Unit: An Evolving Technology"

Presented by: Dan Dietz,
Founder and Chairman of the Board
for Environmental Waste Vitrification Inc.

LUNCHEON:

Place: Houston Community College
Conference Room 221, San Jacinto Bldg.
1300 Holman at San Jacinto
(Cafeteria available on 3rd floor)
Time: Social - 11:45 a.m. - 12:00 Noon
Program - 12 Noon - 1:00 p.m.

DINNER:

Place: Italian Market and Cafe
2615 Ella Blvd.
(Located behind NW Memorial Hospital
just south of 610 North Loop)
Time: Social - 6:00 - 6:30 p.m.
Program - 6:30 - 7:00 p.m.

Note: A \$1.00 surcharge will be charged by the restaurant even if you don't order food or drink.

DAN DIETZ—Biographical Sketch

Dan Dietz is the Founder and Chairman of the Board for Environmental Waste Vitrification Inc. He is a graduate of the University of Houston and has previously been involved in the financing of real estate ventures, oil and gas projects and other investment programs. Mr. Dietz has over five years' experience in the vitrification of hazardous, toxic and medical wastes and was principally responsible for the design of the mobile vitrification unit used by EWV. Approximately one million dollars has been invested in the design and engineering of the vitrification process as well as Environmental Protection Agency test demonstrations.

VITRIFICATION OF HAZARDOUS WASTES USING A MOBILE UNIT: AN EVOLVING TECHNOLOGY

Due to the increasing environmental and economic restrictions affecting the disposal of hazardous wastes, alternatives to processes such as landfill and incineration are needed to meet the needs of industry and governmental agencies. Vitrification technology offers an environmentally safe as well as an economically attractive alternative.

Environmental Waste Vitrification Inc. has developed a

mobile vitrification service to pyrolyze all types of hazardous toxic waste into a glass end product. Typical incineration methods use oxygen for combustion and leave behind a hazardous, toxic and leachable ash end product. The vitrification process traps hazardous waste in a glass matrix at a molecular level in a controlled plasma arc torch furnace. The end product will have the consistency of either thermally shocked granulated aggregate which can be sold to glass companies as feed stock or as glass bricks for use in the construction industry.

Glass products have included toxic constituents for thousands of years, containing concentrations of lead, arsenic, heavy metals, etc. (depending upon the color and quality of the glass desired for the product). These uses of glass within our homes and businesses have not threatened our existence, due to the inert nature of glass. The vitrification process allows the conversion of toxic waste streams into a useful product which can be recycled back into feed stock or into the environment.

The mobile unit used by EWV in the vitrification process can be brought on-site where wastes are generated and allows the elimination of hazardous products without transport or burial of the wastes off-site. This process is exempt from many of RCRA permitting procedures for storage, transport and disposal of hazardous wastes, along with giving the facility the capacity to operate using recycling technologies. The exposure to liability is greatly reduced due to cutting out a potential third-party mishandling of the hazardous waste streams.

The cost savings per ton should be dramatic for all different waste streams over transport and disposal of hazardous wastes by incineration or dumping in permitted landfills, not to mention the savings from costs of ongoing liability. The facility can be viewed by the general public as performing a clean-up operation as compared to simply burying the product or converting it to another chemical form which can still produce toxic leachate.