

ENVIRONMENTAL/ENGINEERING GEOLOGISTS

HGS ENVIRONMENTAL/ENGINEERING COMMITTEE DINNER MEETING OCTOBER 10, 1990

Time: 6:00 p.m. Social
6:30 p.m. Speaker
7:30 p.m. Business Meeting

Location: Charlie's Hamburger Joint
2222 Ella Blvd.
(approx. 1/4 mi. south of 610 N. Loop)
(Buy your own burger, if you wish.)

KAY CROUCH—Biographical Sketch



Kay Crouch is President and Chief Executive Officer of American Envirotech, Inc., Houston, Tx., which she co-founded in 1988.

American Envirotech was founded to provide new, safe and efficient facilities for the treatment of hazardous waste. The company currently plans a \$60-million commercial hazardous waste incinerator in Jacintoport Industrial Park in East Harris County.

As a professional environmentalist, Ms. Crouch has worked in both private industry and government on a broad range of environmental projects.

At the Texas Water Commission, where she worked from 1985 to 1987, Ms. Crouch managed several different activities. She served on the Enforcement Screenings Committee, a group that reviews possible environmental violations. As Section Chief of the Information and Technical Services Section, she set policy relating to recycling and waste minimization. She also worked on RENEW, the Water Commission's program to assist industry in waste minimization.

Previously, she served as an environmental consultant to private industry for more than six years, working at Bovay Engineers, Inc., Houston, and EMANCO, Inc., Houston, an environmental management company she joined in 1979.

During this time, she conducted numerous site selection studies, authored many Environmental Impact Reports and helped obtain operating permits for a wide variety of industrial facilities throughout the southern and eastern United States.

Ms. Crouch, a native of Pasadena, Tx., holds a Master's degree in Aquatic Ecology and a Bachelor's degree in Biology from Stephen F. Austin State University, where she also taught and worked as a research assistant.

THE PROPOSED COMMERCIAL HAZARDOUS WASTE INCINERATION FACILITY LOCATED IN JACINTOPORT INDUSTRIAL PARK IN EAST HARRIS COUNTY ALONG THE HOUSTON SHIP CHANNEL

Today, virtually all manufacturing operations, and many small businesses like dry cleaners and auto repair shops generate what is defined by law as hazardous waste.

Old paint, solvents and cleaners used by industry, spent acids and other byproducts of the manufacturing process are examples of wastes classed as hazardous. If a waste has one of the following characteristics — corrosive, explosive, ignitable or toxic (poisonous) — it is listed as hazardous.

Because these wastes represent potential harm to humans, animals, or plants, or can contaminate surface or ground water, they must be managed and treated properly. This can best be accomplished in a modern facility designed specifically for that purpose, using the latest technology for waste analysis, storage, handling and destruction. The San Jacinto facility will not accept all types of waste. Wastes containing PCBs or dioxins, radioactive wastes, infectious wastes, explosives, gases in containers and municipal garbage are specifically excluded.

The U.S. Environmental Protection Agency and others have identified incineration — which offers permanent destruction — as the best method available for treating certain wastes. A report by the Congressional Office of Technology Assessment stated: "It is preferable to permanently reduce the hazardous character of the material, than to rely on long-term containment in land-based disposal structures."

Utilizing twin rotary kiln incinerators, the San Jacinto facility represents a \$60 million investment that combines the latest incineration technology with stringent operating procedures. It is capable of treating both liquid and solid wastes and removing at least 99.99% of the organic wastes introduced. Annual permitted capacity is 160,000 tons per year.

The facility includes special laboratories to analyze and characterize wastes so that they are properly handled and destroyed. Wastes arriving are weighted, sampled and analyzed to be sure they match identifications on the transportation manifest and on the shipping containers. Not until all of these precautions are taken, are the wastes unloaded and sent to their proper storage area.

Liquid wastes are stored in either of two tank storage areas with a total capacity of 700,000 gallons. Solids are sent to either a bulk or drum storage building. The storage buildings are specially designed so that wastes are properly segregated and contained and so that no waste ever touches the soil.

"Best Available Control Technology," represented by a three-stage wet scrubbing air pollution control system, ensures that emissions remain well within the strict limits

established to protect human health and the environment. After being cooled, the gases from the incinerator pass through a hydrosonic scrubber where particles and gases are removed. A polishing unit, or cross flow scrubber, then provides final treatment before the cleansed gas is discharged through a stack that has separate and redundant equipment to continually monitor emissions.

AEI's scrubbing system removes in excess of 99.8% of the hydrochloric acid gas and 95% of the sulfur dioxide in the exhaust. Particulate removal will exceed the strict Texas standard of 0.03 grains per dry standard cubic foot.

All ash from the incineration process and solids collected from the treated wastewater will be sent offsite for disposal in a properly permitted landfill. Clarified water will also be sent offsite to a permitted wastewater disposal facility.

There are standing contingency plans in the event of an emergency and a detailed inspection schedule to monitor key areas on a daily basis. In addition, a computer control system will continuously monitor various operating conditions. The system automatically shuts down waste feed to the rotary kiln should any single operating condition not be met. Operating personnel are assigned 24 hours per day, seven days per week at the San Jacinto facility.