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LESSONS LEARNED FROM THE 1970s EXPERIMENTS IN SOLID WASTE CONVERSION TECHNOLOGIES

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ABSTRACT

Countless proposals for conversion technologies applied to municipal solid waste (MSW)^c, such as gasification, many of which include mechanical processing of the MSW prior to the thermal conversion steps, have generated significant interest and press over the past few years. Many community groups and local officials are being pressured by developers to view these technologies as better and more politically acceptable alternatives to mass burn waste-to-energy facilities. From a historical perspective, most (but not all) of the basic technologies being promoted today are not new, but are variations of technologies that were evaluated and tested during the 1970s for use in processing and converting MSW.

This paper presents overviews and several case studies of the MSW conversion technologies that were developed and tested during the 1970s including MSW processing and gasification technologies, and sets forth:

- Lessons learned from those experiments.
- Based upon the lessons learned, recommended rules of engagement for those contemplating evaluation or use of a processing and/or conversion technology.
- A practical application of the above lessons learned and rules of engagement to the plasma arc gasification technology currently being promoted by a number of developers.

The contents of this paper should be carefully considered by anyone contemplating the merits and feasibility of any MSW processing and/or conversion technology being promoted today or in the future.

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^c As used in this paper, MSW refers the heterogeneous solid waste that is normally collected from households and commercial establishments by packer truck type collection vehicles and compactor or non-compactor roll off containers. It excludes homogeneous wastes, select wastes and other wastes not normally collected as described in the first sentence of this footnote.