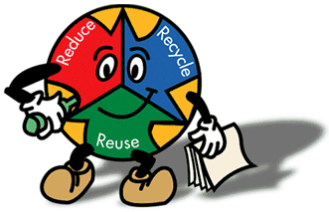
SALINAS VALLEY
SOLID WASTE AUTHORITY
Promoting the Environmental Health of the Salinas Valley



CONVERSION TECHNOLOGY COMMISSION

Agenda
Monday, February 2, 2009
9:00 a.m.
128 Sun Street, Suite 101
Salinas, California

I. Call to Order

II. Roll Call – Commission Members: George Worthy
Janet Barnes
Yolanda Teneyuque
Richard Ortiz

III. Public Comment - *Receive public comment from audience on items which are not on the agenda. Members of the public may comment on scheduled agenda items as the Board considers them. Speakers are limited to three minutes.*

IV. Site Visit - Adaptive Arc, 105 Leavesley Road, Gilroy

V. Johnson Canyon Resource Management Park (Recycle City) Status Report

VI. Adjournment

Adaptive Arc Site Visit

9:15 Leave Authority office

10:00 Meet and introduction; quick safety talk

10:15 Tour of shop

a) Basic technology overview and component build process
b) Some of the machinery and tooling
c) Project schedule
d) Process and efficiencies for the next systems

11:00 Introduction to plasma torches

a) Pulsed energy utilization
b) UV light component

11:15 Torch demonstration

11:30 Q & A

Appropriate dress for this demonstration: Jeans, closed toed shoes and long sleeve shirts. Sunglasses with UV protection.

Please confirm your attendance at this meeting to Ernesto Natera 775-3001 by January 28

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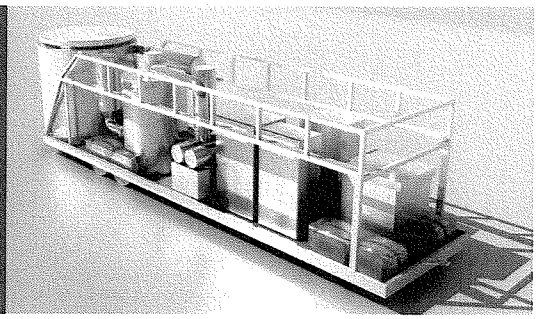
adaptiveARC

Waste is energy

adaptiveARC creates compelling economic alternatives to high-impact waste management practices. Our patented plasmaFILL™ technology is portable, modular and scalable. We provide technology and services that support a cleaner and safer world.

The Urban Class SB6000 reactor processes 254 to 2032 tons of waste per day, allowing it to generate from 12MW to 48MW of electricity.



Clean, sustainable energy

Our patented plasmaFILL reactors convert municipal, green, construction, demolition, medical, and even non-metallic toxic waste into a clean-burning near zero-emissions synthetic natural gas.

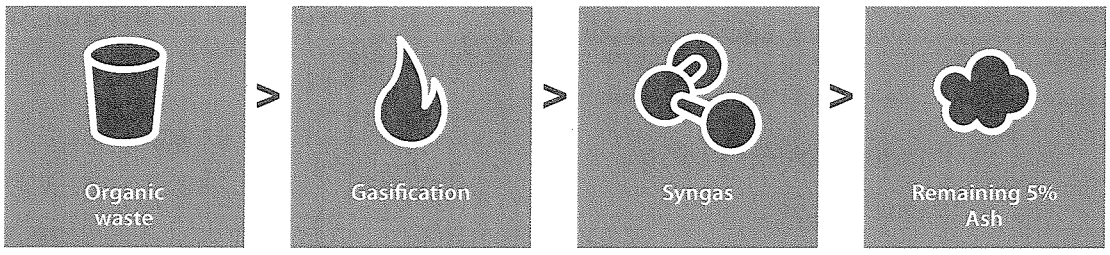
Our systems are portable, modular and scalable

The plasmaFILL reactor is easy to transport, modular in design, and scalable in nature. This provides quick delivery times for facility creation and expansion. Waste managers can upgrade or expand their sites with zero loss of investment.

Enhanced revenue > indefinite lifetime

adaptiveARC enhances your revenue by enabling waste managers to accept higher-than-permitted volumes of waste. Our plants create 100% commercial output. Costly post-closure maintenance is avoided extending operational lifetime indefinitely. Waste managers can control or completely eliminate gases, dust, odor, leachates, runoff and increase options for carbon credit trading.

Plasma gasification does not create any of the gases or hazardous by-products associated with combustion. The plasmaFILL has a minimal impact on the environment.



Configurations		
Industrial Class	100 - 800 tons of waste per day	Generates 2MW - 16MW of electricity
Urban Class	254 - 2032 tons of waste per day	Generates 12MW - 48MW of electricity
Metropolitan Class	1,000 - 9,000 tons of waste per day	Generates 34MW - 216MW of electricity

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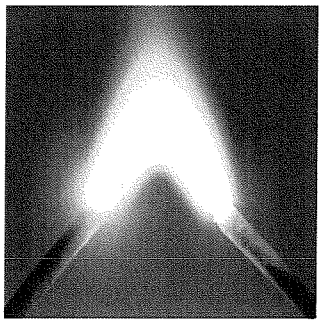
Arc-Plasma Gasification



An electric arc is an electrical breakdown of a gas which produces an ongoing plasma discharge, resulting from a current flowing through normally nonconductive media such as air. Arc-plasma gasification is a waste treatment technology that uses high electrical energy and high temperature created by an electrical arc gasifier. This arc breaks down waste primarily into elemental gas and solid waste (inert ash), in a device called a plasma converter. The process has been intended to be a net generator of electricity, depending upon composition input wastes, and to reduce the volumes of waste being sent to landfill sites.

Relatively high voltage, high amperage electricity is passed between two electrodes, spaced apart, creating an electrical arc. Inert gas (air or inert gases under pressure) is passed through the arc into a sealed containment containing waste material, temperatures as high as 3,000°C (5,500°F) are reached in the arc. At these temperatures most types of waste are broken into basic elemental components in a gaseous form, and complex molecules are atomized separating them into individual atoms.

The reactor operates at a slightly negative pressure, meaning that the feed system is complemented by a gaseous removal system, and later a solid removal system. Depending on the input waste (plastics tend to be high in hydrogen and carbon), gas from the plasma containment can be removed as Syngas, and may be refined into various fuels at a later stage. *From Wikipedia.*

The adaptiveARC Solution

Though the science is old and the problem of landfill seemingly large, there have been few implementations of this technology to date. We believe there are several largely economic reasons for this:

- Systems for municipal scale are typically single-point solutions. That is, a team of contract engineers design a single site with little opportunity for the cost reductions associated with mass production and

Technology

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> Economics

implementation.

- Single-point solutions do not accommodate for refinements in the technology. Upgradability is not built into these systems.
- Return on investments are not calculated to benefit the primary beneficiaries.
- There is little opportunity to take small steps. Single-point solutions require large investments and massive commitments. There's no opportunity to "test the waters".
- Ongoing maintenance and operations lie completely with the landfill. It's not likely that a landfill will have the ongoing resources that this high-technology approach will require in the indefinite time frame.

Inert Ash

The solid material that is produced as a by-product of the conversion of Municipal Solid Waste is an inert, sand-like material that is valuable and saleable as a construction material which can be used as road aggregate, asphalt or in the production of concrete.

By weight, 1 tonne of MSW is expected to generate approximately 150 kg of solid residue. On a volumetric basis, the facility will generate approximately 1 truck of ash for every 125 trucks of waste coming into the plant!

Plasma gasification achieves a very high waste volume reduction regardless of waste type, requires no fossil fuel input, and results in lower pollution than conventional incineration. It produces two useful by-products — inert ash for use as a construction material, and syngas for power generation. Currently with limited commercial use, there is potential for widening its foothold in waste management.

Simple & Friendly

Arc Plasma gasification of MSW is an environmentally friendly process that provides waste destruction while producing energy. The process uses electricity and high-pressure air to create plasma, the fourth state of matter, with temperatures reaching 10,000 degrees Fahrenheit, exceeding temperatures at the surface of the Sun. These high temperatures promote rapid and complete gasification of all feed materials, resulting in gases that are then used to generate electricity.

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adaptiveARC : portable design
adaptiveARC is focused on designing and delivering our plasma reactor as a standardized product to the marketplace. All of our plants and reactors have been designed to fit on the back of a flatbed tractor trailer or rail car. This allows for easy transportation to our customer, as well as easy expansion and future upgrades. adaptiveARC facilities can be easily expanded with additional modules as customer needs increase.

Benefits:

- Quick delivery
- Quick setup and breakdown
- Easily maintained
- Facilitates upgrades
- Keep pace with technology

Getting approval for capital projects takes time. Following approval installing an adaptiveARC plant moves quickly. This offers unique advantages in disaster, construction and demolition and other special situations. It also offers dramatic benefits to plants at or nearing closure.

Because our products are standardized maintenance is dramatically simplified. When a unit experiences a maintenance issue the part is simply replaced. If the whole reactor requires replacements, it's swapped out and a new one is rolled in.

Upgrades and cross-grades enable waste managers to scale with needs. As a construction project nears completion the units are simply hauled to the next location.

Keeping pace with technology

Though the science is over 120-years old, the technology is very new and advancing rapidly. Our portable design prevents your investment from getting locked into obsolescence. As new models of our reactors come online we provide a consistent and compatible upgrade path, which protects your investment every step of the way.

Technology

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