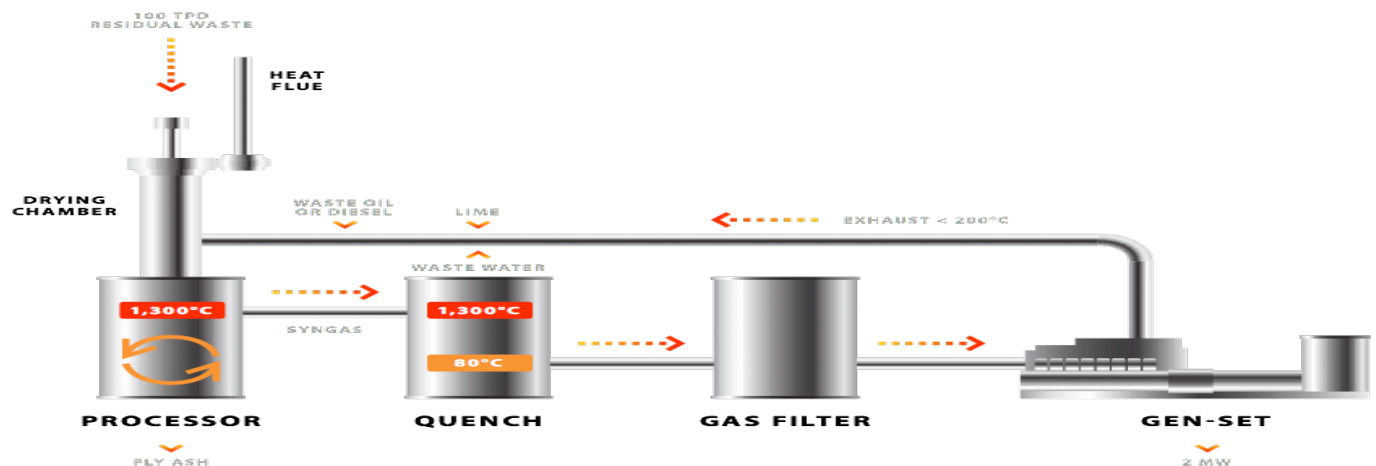


THE PROCESS

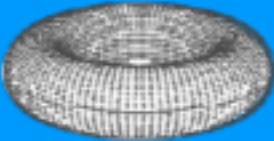
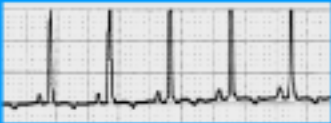
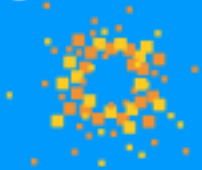
The Clean Energy plasma arc systems process waste over the course of 22 hours per day, 7 days per week, 365 days per year and produce continuous electricity.

1. Waste is delivered and put through a shredder so that all materials are shredded to 3 inch minus.
2. The shredded waste is taken by a conveyor and delivered to the processing chamber.
3. A lime additive is sprayed onto the incoming waste to neutralize acidity and prevent emission formation.
4. The waste then enters a partial-pyrolysis drying chamber that reduces moisture content.
5. The waste is then repeatedly passed through a plasma arc electrical field in an oxygen-deprived chamber.
6. This extremely high heat environment (1300 C) breaks down the waste feedstock into its molecular components, thereby separating the hydrogen from the carbons in all hydrocarbon-comprised waste.
7. The elements that make up the syngas are repeatedly cycled through the plasma field and processor to eliminate all toxic components and clean the syngas.
8. The syngas is then quickly cooled with water slurry spray to avoid the temperature zone that forms dioxins and furans and is passed through two gas-cleaning columns.
9. The clean syngas finally passes through a particulate filter to eliminate any particulate matter before being used for electricity generation or other commercial outputs.
10. When being used for electricity generation the clean and particulate-free syngas is delivered immediately to a Caterpillar generator, where it is cleanly combusted for energy production.
11. The patented adaptiveARC regenerative cleaning process recycles all of the exhaust from the generator back into the drying chamber and through the plasma processor to use the heat and energy value of the exhaust instead of releasing dirty emissions into the air.
12. All of the materials with no energy value are discarded at the bottom of the processor as an inert ash with a 95% volume reduction of the original waste input.
13. This remaining ash has commercial value and can be used as an additive in cement or fertilizer.



THE TECHNOLOGY

Our patented Cool Plasma® gasification process utilizes a combination of plasma fields, pulsed plasma energy and UV detoxification to produce the most cost efficient and cleanest energy on the market.

| | | |
|--|--|--|
| <p>Plasma field</p>  <p>Dissolution directly in plasma field occurs at atomic level at temperatures too cool to vaporize heavy metals.</p> | <p>Plasma pulses</p>  <p>Pulsed energy accelerates dissolution process, eliminates sour gasses and toxic salts.</p> | <p>UV light detoxification</p>  <p>Accelerates breakdown of ash and residual gas toxins with little energy loss.</p> |
|--|--|--|

The adaptiveARC Cool Plasma process is not incineration and as such, does not generate the problematic exhaust emissions produced by burning waste. This is because we operate in an oxygen-starved environment, inhibiting the formation of NO_x, SO_x and other pollutants, and we operate at a temperature so high that all compounds are broken down into their mono-elemental components, thus creating fuel not emissions.

| COOL GASIFICATION Temperature ~ 1300° C Oxygen starved Creates fuel | INCINERATION Temperature ~ 600° - 800° C Oxygen required Creates exhaust |
|---|--|
| CO | CO₂ |
| H₂ | H₂O |
| N₂ | NO_x |
| Inert sulfides | SO_x |
| | O₂ |

C carbon
 H hydrogen
 N nitrogen
 S sulphur
 O oxygen