PLASCONÂ® In-Flight Plasma Technology

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PLASCON® Plant in Operation

The PLASCON® process is a compact plasma torch developed by CSIRO and Siddons Ramset Limited and further refined by SRL Plasma Limited as a state-of-the-art hazardous waste treatment process. The PLASCON® process produces a high temperature plasma arc by ionizing argon gas in a 150 kW DC discharge between a separate cathode and anode. A mixture of PCB liquids and oxygen or steam is injected radially into the plasma at a specially designed injection manifold. An average mixing temperature at the injection manifold of approximately 3000Â° C destroys the PCB molecules, converting them into atoms and ions. This process is known as pyrolysis. Dioxin formation is avoided by the use of pyrolising conditions and rapid quenching.

The operation of PLASCON® is controlled by a programmable logic controller (PLC), which is coupled with supervisory control and data acquisition (SCADA) software running on an IBM compatible personal computer (PC). The PLC accepts input from and provides output to various field instruments and carries out a series of control sequences. The PLC also maintains plant safety by only permitting plant start-up if certain preconditions have been satisfied. The plant can be rapidly shut down manually of automatically via various shutdown interlocks if certain measured variables exceed their trip points.

In comparison with incineration processes, the off-gas volumes from PLASCON® are extremely low, as are residual ground level concentrations.

PLASCON® can achieve Destruction Efficiencies (DE) in excess of 99.9999%. For detailed information on PLASCON® please visit the PLASCON® website..