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BCD Technologies Pty Ltd



Background

BCD Technologies Pty Ltd, a waste destruction company, specialising in collection and destruction of PCBs, was the first company to commercialise the US EPA-licensed, Base Catalysed Dechlorination (BCD) process. The process was operated for a number of years to destroy Polychlorinated Biphenyl (PCB) contaminated oil.

As a consequence of the BCD process's limitation on the maximum concentration of PCB that it could economically treat, BCD Technologies purchased a licence and PLASCON® plant from SRL Plasma Limited in 1997 to treat a range of concentrated chlorinated wastes including PCBs and organochlorine pesticides.



Analysis of Samples

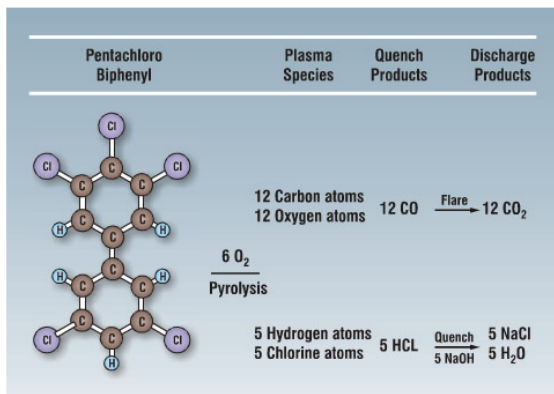
Waste Treated

BCD Technologies use their PLASCON® plant to destroy a variety of PCB wastes containing chlorine concentrations up to 60%.

The bulk of the waste is drained from electrical transformers and capacitors and transferred to a bulk feed storage vessel. Any contaminated solids are then broken up and the remaining liquid is extracted by a thermal desorption process. The condensed vapours are added to the liquid storage. The liquid waste is then pumped directly to the PLASCON® plant for destruction.

Chemistry

An example of the decomposition chemistry for one specific PCB molecule follows:



Note: Sufficient oxygen is added to convert carbon to carbon monoxide which is subsequently converted to carbon dioxide in a flare.

Operational Performance

Over the past two years BCD Technologies have operated their PLASCON® plant 24 hours a day, destroying waste at the rate of 40-45 kg/h, returning a Destruction Efficiency of >99.9999%.

The level of PCB in the effluent discharged to the sewer complies with the 2 ppb limit specified in the Australian Government's PCB Management Plan.

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