Base Catalysed Dechlorination

BCD Technologies, a DoloMatrix company uses base catalysed dechlorination for the destruction of certain chlorinated, organic waste streams.

Base Catalysed Dechlorination, also know as "The BCD Process", can involve direct dehalogenation or decomposition of the Waste material, or can be linked with a pre-treatment step such as thermal desorption which yields a relatively small quantity of a condensed volatile phase for separate treatment by the BCD process.

The BCD process involves the addition of a caustic solution to the contaminated medium containing one or more halogenated or non-halogenated organic contaminant compounds. A proprietary catalyst compound is also required.

The mixture is heated at a temperature suitable for the reaction to take place.

The BCD process is able to reduce PCB from a maximum 10000 mg/kg to below detectable limits. The process must be monitored to ensure that the reaction continues to completion.

Given that the process is a batch operation, it is possible to allow the reaction to proceed until the required level of destruction has been confirmed; typically batches are treated to less than 2 ppm as per Australian requirements.