

CPS Deactivation UNITS

A large Cyclic Propylene Steaming (CPS) deactivation unit is available in LEFH for FCC catalyst deactivation. The unit is fully automated and consists of a metal fluid bed reactor heated by a 3-zone furnace. Temperature control is achieved with measurements from thermocouple in the catalyst bed. The CPS unit accepts about 5 Kg of FCC catalyst. Metals are deposited on the catalysts following a standard wet impregnation method. Then the catalyst is loaded in the CPS unit for the deactivation. A special protocol is applied in the unit using alternate oxidation-reduction cycles. The oxidation takes place with a mixture of air while the reduction with a mixture of propylene. Steam is always added in the unit for all cycles.