



IndianOil

indLPet

LCO Upgradation Process

indLPet[®]

Production of Petrochemical Feedstock (Alkylated Benzenes) from LCO

The installed capacity of Fluid Catalytic Cracking (FCC) units in India as well as Asia Pacific region is increasing due to increasing production of Petrochemical feedstocks. This results in production of higher quantity of Light Cycle Oil (LCO) stream.

As on today, LCO stream is routed to HSD pool after processing in Diesel Hydrotreating (DHDT) unit for reduction of sulphur and associated improvement in Cetane. Due to higher concentration of aromatics, the improvement in Cetane of LCO stream on standalone basis is much lower than other diesel range streams (Straight Run Gasoil, Coker Gasoil, etc.) even at higher pressure and with higher chemical hydrogen consumption.

Considering this, indLPet technology has been developed by IndianOil R&D for conversion of LCO from FCC / INDMAX units to aromatic rich naphtha suitable for processing in Aromatics Complex producing BTX. In case of non-availability of Aromatics Complex, the technology can be employed for production of high octane gasoline stream of RON in the range of 95-97.

With changing global energy scenario and focus shifting towards crude-to-chemical (CTC) configuration, indLPet[®] technology will act as a bridge between the refinery and petrochemical complex. This technology will be crucial for increasing overall petrochemical yield in future CTC configurations.

Salient Technology Features

- ◆ Simplified configuration similar to conventional DHDS/DHDT
- ◆ Low operating pressure (40-60 kg/cm²g)
- ◆ CAPEX is comparable to DHDS unit
- ◆ Process can handle wide range of LCO feedstock with total aromatics in the range of 70 - 98 wt%
- ◆ Flexibility of operation in different modes to produce either petrochemical feedstock or high octane gasoline depending on Client's requirement
- ◆ Proprietary catalyst with attractive run length

Major Benefits

- ◇ Possible to revamp existing DHDS/DHDT units
- ◇ Production of high aromatics Naphtha suitable for routing to Aromatics Complex for production of BTX or direct blending into MS pool without further treatment
- ◇ Unloading of LCO from existing DHDT units improving catalyst run length and overall unit performance
- ◇ Highly attractive in refineries with petrochemical integration, especially in 'Crude to Chemicals' configuration

Commercial Experience

- ◇ Wide operating experience with commercial Hydroprocessing units
- ◇ BDEP prepared for revamp of DHDS to indLPet in one of the Indian refineries



For more information, please contact:



Mr. Avinash Jain
IndianOil R&D

Tel: +91-129-2294396

E-mail: inforndiocl@indianoil.in