HINDUSTAN PETROLEUM – DEAROMATIZED KEROSENE (HP-DAK) PROCESS

De-aromatic solvents are a class of hydrocarbon solvents which has very low aromatic contents (<2%). These are used as solvents for printing inks, paints & coatings, metal working fluids, industrial and institutional cleaning, adhesives and sealants, drilling fluids, and in consumer products. Major suppliers of these solvents are Shell GTL, Total, Exxon Mobil, Gulf countries in Indian as well as global market. None of the Indian Oil Companies are producing these solvents.

HP-DAK is a process of converting kerosene range hydrocarbon streams to low aromatic de-aromatized solvents. Feed stock for HP-DAK is Light Distillates (LD) from LOUP in MR. Light Distillate is converted to HP-DAK in a fixed bed reactor and then fractionated in different grades as per market demand. HP-DAK products have substantially high value compared to the LDs which are now being blended in HSD. Presently the process uses commercial catalyst. Inhouse catalyst development for the process in progress.

HP-DAK demonstration plant of 52 KTPA is being put up in MR. BDEP of the unit completed. Engineering of all equipment completed. PO placed for long lead items like Reactor, Fractionator and Stripper Towers. Scheduled completion date is Dec'21.

98-F-0001 A/B FEED FURNACE 98-D-0002 98-D-0005 A/B SULFUR GUARD BED 98-R-0001 98-T-0001 98-P-0011 A/B 98-T-0001 G-L SEPARATOR STRIPPER FRACTIONATOR DAK REACTOR Br. Light Distillat LIGHT GASES 98-F-0001 A/B 98-D-0001 98-D-0005 A/8 LIGHT GASES DAK NAPHTHA 98-T-0005 LIGHT GASES DAK KERO 98-D-002 DAK SOLVENT 98-T-0004 DAK SOLVENT II MP STEAM MP STEAM DAK DIESEL 98-T-0001 98-T-0002 98-T-0005 98-T-0003 98-T-0004 KERO STRIPPER SOLVENT I STRIPPER SOLVENT II STRIPPER 98-F-0002 A/B FRACTIONATOR 98-F-0002 A/B

HP-DAK - Process Flow Diagram