

India begins producing 'reference' fuel, joins select league of nations

NEW DELHI, OCT 26 /--/ India on Thursday began producing 'reference' petrol and diesel, joining a select league of nations that produce the highly specialised fuel which is used for testing automobiles. Launching the fuel, Oil Minister Hardeep Singh Puri said the start of production of 'reference' fuel is another step towards Aatmanirbhar Bharat (self-reliant India) as it will end imports. These fuels, which have higher specifications, are critical for calibrating and testing by automobile manufacturers and testing agencies like the International Centre for Automotive Technology (ICAT) and the Automotive Research Association of India. For decades, India has relied on imports to meet the demand for these specialised fuels. But now, Indian Oil Corporation (IOC) has indigenously developed products that will replace imports, ensuring a reliable supply at a much lower cost for vehicle manufacturers and testing agencies. Puri said there are only three suppliers of reference fuel in the world including US giant Chevron. IOC's Paradip refinery in Odisha will produce 'reference'

grade petrol and its Panipat unit in Haryana will produce such quality diesel.

Fuel retailers like IOC sell petrol and diesel of primarily two kinds - regular and premium, through their fuel station network. The biggest difference between the normal and premium fuel lies in the octane number. The regular fuel has an octane number of 87, but premium fuel has an octane number of 91. Reference grade fuel comes with a 97 octane number. The octane number is nothing but a unit to measure the ignition quality of petrol or diesel.

For vehicle testing purposes, the fuel has to be of a higher grade than regular or premium petrol and diesel. The host of specifications -- from Cetane number to flash point, viscosity, sulphur and water content, hydrogen purity and acid number -- are listed under government regulations, such fuels are referred to as 'reference' petrol/diesel. These reference fuels are used for emission testing of vehicles equipped with spark ignition engines.

Puri said producing 'reference' fuel domestically will also have a cost advantage. Against the price of Rs 90-96 per litre for regular petrol

and diesel, the imported 'reference' fuel comes for Rs 800-850. Producing it domestically will cut its cost to around Rs 450 a litre. Since the volume requirements for such fuels were traditionally not very high, refineries did not produce them. All the requirements of 'reference' for vehicle testing were imported.

IOC in line with the government's objective of becoming Aatmanirbhar has started producing the fuel at its refineries, company chairman S M Vaidya said. Besides IOC, Bharat Petroleum Corporation Ltd (BPCL) and Hindustan Petroleum Corporation Ltd (HPCL) are the other two dominant fuel retailers in the country. The three state-owned firms control roughly 90 per cent of the market. Puri said this step stamps "our indigenous technical prowess" which gives impetus to the Make in India mission of Government of India.

After meeting the domestic requirements, IOC will also tap the export market for the fuel. The minister spoke about the four-pronged energy security strategy adopted by the government to make the nation 'energy-independent' by 2047. These include diversification

of energy supplies, increasing exploration and production footprint, alternate energy sources and meeting energy transition through gas-based economy, and green hydrogen and EVs. Highlighting the steps undertaken for reducing emissions, he said the rollout of petrol mixed with 20 per cent ethanol has been advanced to 2025 from an earlier deadline of 2030. "I am told the target of 12 per cent ethanol mixing has been achieved this month and we are on track for the 20 per cent goal by the end of 2025 calendar year," he said, adding that 5,000 petrol pumps are already selling 20 per cent ethanol-blended petrol. Vaidya said the indigenously developed reference fuel will lead to import substitution at better price and minimum lead time for the vehicle manufacturers. Reference gasoline (petrol) fuels will be available in E0, E5, E10, E20, E85, E100 from Paradip refinery. Reference diesel fuel shall be available in B7 grade from Panipat refinery. Reference fuels (gasoline and diesel) are premium high-value products, used for calibration and testing of vehicles by auto OEMs and organizations involved in testing and certification in the automotive field. (PTI)