

KBL makes sodium pump for N-plant

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Kirloskarwadi (Sangli): Kirloskar Brothers Limited (KBL), the flagship company of \$2.1 billion Kirloskar Group, on Friday handed over its first primary sodium pump that would use sodium as coolant at the fast breeder nuclear power plant in Kalpakkam near Chennai.

With this, the KBL has become the fourth company in the world to manufacture sodium pump for nuclear reactors.

KBL chairman and managing director Sanjay Kirloskar and Bhavini CMD Prabhat Kumar were present at Kirloskarwadi to flag off the vehicles carrying pumps to Kalpakkam.

Kumar said, "Once the sodium pump, used for circulation of liquid sodium as coolant at the N-power station is installed, we are expecting the station to go critical by September 2014. It is a stabilization procedure. And once it is achieved, the station can start power generation by March 2015."

Kirloskar said, "It is a major achievement for us and we can now cater to orders from other nuclear power stations as well. If we get orders from foreign companies, it can be completed with due permission from the Union government."

The Sodium Pump was designed, developed and manufactured with the help of DAE, Bhabha Atomic Research Centre and Bhavini." Kirloskarwadi is a century old industrial township set up in the drought prone area of Sangli district. The group later spread across the world having total 13 manufacturing facilities of which six

are abroad.

After working for almost a decade, the KBL has made the indigenous pump weighing 135 tonnes and with a capacity of handling 5.16 lakh litre of liquid sodium per minute. It will be installed at the prototype fast breeder reactor. The liquid sodium will work as the coolant at the nuclear power plant, replacing the existing coolants such as water and heavy water used in the existing nuclear power plants. Sodium has higher boiling point compared to the existing coolants, said Prabhat Kumar.

The sodium pump would be installed at Kalpakkam nuclear power plant, which can add 500MWe power to the national grid. The Kalpakkam plant is located 70 km from Chennai in Tamil Nadu. The plant is run by Bharatiya Nabhikiya Vidyut Nigam Limited (Bhavini), the wholly owned enterprise of the Government of India under the administrative control of the Department of Atomic Energy (DAE). The facility at Kalpakkam is the country's first fully indigenously constructed nuclear power station.

The DAE has decided to focus on the three-stage nuclear power generation programme, where the waste generated from nuclear power generation will be processed and reutilized as fuel for the second stage of power generation and the same procedure will be utilized for the third phase as well. The entire exercise is going to be implemented for maximum output for the nuclear fuel and reducing the size of waste, which has a life of 300 years.