A Construction Case Study of Padur underground oil strategy cavern in India

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Abstract

The rapid strides made by the Indian economy in the last decade have resulted in tremendous pressure on the demand for oil and gas. In the recent past ways and means were envisaged to look for the environmentally and strategically safer storage methods for oil and gas. India is the fourth-biggest consumer of energy in the world. And it meets approximate 80 percent of the demand through imports. Government of India has planned construction of four underground strategic crude oil storage caverns at Mangalore (1.5 Mt), Vizag (1.33 Mt), Padur Part-A(1.25 Mt) and Part-B(1.25 Mt).

SKE&C which has many experiences of construction of underground cavern creates a Joint Venture with KCT and has constructed two projects (Manalore, Padur Part-B) among four projects. Especially Padur Part-B Underground Strategic Crude Oil Storage Cavern Project has been completed the excavation work first and selected as the "BEST SITE" for the year 2011 and 2013 among all ISPRL ongoing Projects. Also, Padur Part-B Underground Strategic Crude Oil Storage Cavern Project awarded in recognition of commitment and excellent performance in achieving Ten Million Safe Man Hours.

Padur Part-B Underground Strategic Crude Oil Storage Cavern Project consists of civil works for two units of underground rock caverns and mechanical works for piping in shaft and cavern. The main idea to establish this Project is to import crude oil from Oil Producing Countries and storage in the underground rock cavern with a length of 700m, width of 20m and height of around 30m. This storage will be used as strategic reserves for the Country during emergencies/disruption of supplies. This paper describes a construction case study for Padur Underground Strategic Crude Oil Storage Cavern Project in India by SKE&C.