

13.2 Recent development for Chinese Oil Shale activities

Shuyuan Li, Changtao Yue, Jialin Qian, Jianqiu Wang

China University of Petroleum, Beijing, China

In 2007, Fushun Mining Group Co., in Liaoning Province, produced 300,000 tons of shale oil, using 180 Fushun type retorts each processing 100 tons of oil shale per day. Production cost is ~1,000 Yuan (RMB) per ton because the oil shale is a byproduct of coal mining. The present selling price of shale oil is > 4,500 Yuan. In Fushun, an additional 40 Fushun retorts will be operating by the end of 2008, and the 6,000 ton oil shale per day ATP retort now under construction will be operational at the end of next year. In Huadian City, Jilin Province, a power station with 3 sets of circulated fluidized bed combustion boilers equipped with electric generators (capacity 18 MW) is operating, consuming 480,000 tons of oil shale per year. In Huadian, 3 private companies continue to operate 20 Fushun retorts with capacity of 50,000 tons of shale oil per year (cost - ~2,000 Yuan per ton). The retorted shale is used for oil shale power plants. In Huadian, Fuxin Coal Company and partners are conducting a project to produce 200,000 tons shale oil annually for use in a power station at a capital cost of >2 billion Yuan. A private company in Wangqing County, Jilin Province built 20 Fushun retorts for processing Wangqing oil shale. A private company in Sechi county, in Guangdong province operated a small oil shale power plant using Maoming oil shale, equipped with a 12 MW electric generator. China National Coal Company supports the Harbin Coal Chemical Company in Heilongjiang province, to build and operate a fluidized bed retorting pilot plant with processing capacity of 50 tons shale per day. The feasibility study has been finished for building a pilot retorting plant with daily processing capacity of 2,000 tons of shale. China National Petroleum Company (CNPC) cooperated with Dalian Technological University to use particulate oil shale retorting technology in a planned pilot plant with 2,000 tons shale per day capacity. The feasibility study has been reviewed and passed. Gansu Coal Company, Gansu province, is building an oil shale retort plant for 100,000 ton shale oil per year. This company will cooperate with Sanjiang company to use a 300 ton per day square retort planned to be operating at the end of this year. Professor Jialin Qian, as chief editor, has published a book titled "Oil Shale - Petroleum Alternative," written in Chinese, in June, 2008. This book will be published in English at the end of next year.