

The Alberta Taciuk Process (ATP) Technology

ATP System Installed at Fushun Mining Group (FMG), China



1) Introduction

- FMG is a large state owned coal mining company and shale oil producer located in Fushun, China.
- FMG chose to use the ATP Technology to process the fines portion of oil shale that they cannot process in their existing vertical retort plant.
- Basic process design of the plant and detailed process design of the ATP Processor was supplied by UMATAC. Detailed mechanical design of the ATP Processor and supply of key mechanical components was by Polysius.



Above: The Oil Recovery System



Field equipment training for FMG ATP plant engineers and operators



Classroom training on ATP System theory of operation

Project Highlights

- First application of the ATP Technology in China. Design teams located in Canada, Germany, and China.
- Leading edge field machining technique was used to overcome transportation logistics for an in-land construction site.
- Environmental performance has been enhanced, greenhouse gas emissions reduced, and resource utilization increased.

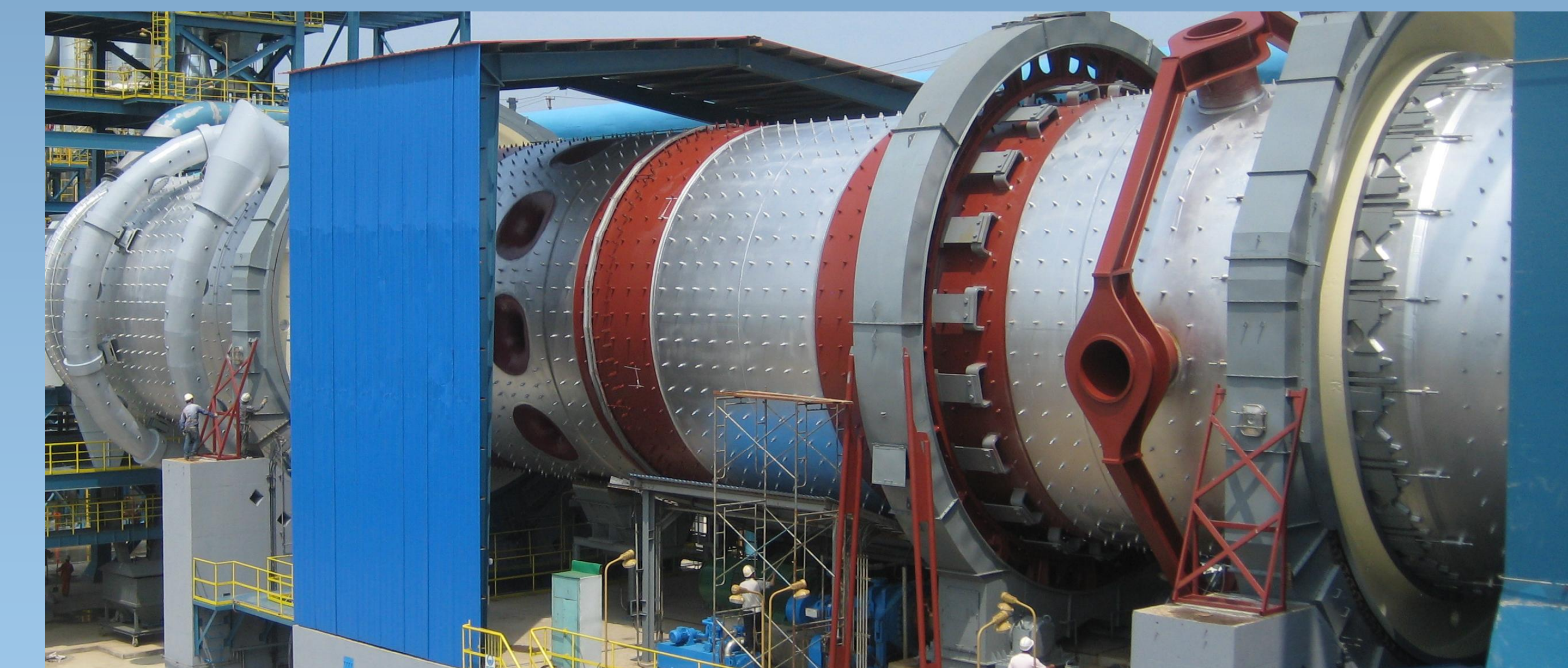


2) Commissioning Update

- Mechanical completion in October 2010. Functional check-out and cold commissioning are underway.
- Training on ATP System theory, control, and interlock systems was carried out March-August 2010.
- UMATAC and Polysius have commissioning teams in Fushun assisting FMG personnel.
- First oil scheduled for late 2010/early 2011.



Above: Central Control Room



Above: ATP Processor

3) ATP System for FMG Facts

- Rated throughput 1,750,000 tonnes/year oil shale.
- ATP Processor dimensions are 8.5 m OD x 63 m long (28 x 206 ft). Installed drive power is 2800 kW (3750 hp).
- ATP Processor weight is 2800 tonnes (3100 tons).
- Ore shipped by train to plant site, crushed, then stored in one of four 2000 tonne silos before processing.
- Products are naphtha, fuel oil, and electricity (generated from burning the off-gas by-product).