Jimah 3B, Malaysia

Key facts about the plant

- 2x1000 MW ultra-supercritical coal fired power plant
- Owner: Jimah East Power Sdn Bhd (JEP)
- Contractor: Hyundai Engineering CO., LTD.

Key facts about the chimney

- Completed in 2017
- Concrete chimney
- Cylindrical shape
- H 160m
- Outer Ø = 23.3m (bottom), 23.1m (top)
- 2 carbon steel liners, Ø = 9,150mm each with borosilicate protection

The Jimah East power project, known as the Tuanku Muhriz power station, is located in Port Dickson, Negri Sembilan, Malaysia, approximately 80km away from Kuala Lumpur.
It is owned and operated by Jimah East Power (JEP), a joint venture of Tenaga Nasional Berhad (TNB), Mitsui and Chugoku Electric Power.

A consortium of Toshiba Corporation, IHI Corporation, Hyundai Engineering Co.,Ltd. and Hyundai Engineering & Construction Co.,Ltd. was awarded this project by Jimah East Power in September 2014.

In this power plant, FERBECK has been awarded an EPC contract of a 160 meter-high-concrete chimney by Hyundai, as well as two 47 meter-high-concrete silos*.

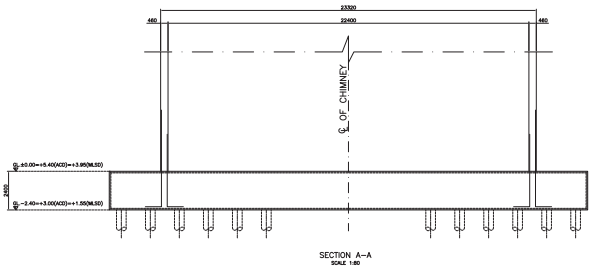
The scope of work includes:

- foundation
- concrete shell
- outer shell coat
- steel platforms and walkways
- borosilicate as internal protection
- all other steel elements (doors, windows…)
- access lift and stairs
- electric system (lighting, inner power supply, aircraft signalization lamps…)
- lightning protection system

** see Jimah 3B concrete silos project report*

Foundation

The foundation is made of 1,755m^3 of concrete with the following size:
- 29.7m x 29.7m
- h 2.4m at EL.-2.4m



Concrete shell

The outer concrete shell is made of 4,620m^3 of concrete with the following size:
- 23.3m (bottom), 23.1m (top) of external diameter
- h 60m

The casting is performed with a slipform operating 24/7.

Platforms

4 platforms and 1 walkway are installed inside the structure:
- roof platform at EL.+155.0m
- support platform at EL.+149.0m
- CEMS platform at EL.+120.0m
- AWL and guide platform at EL.78.0m
- inspection walkway at EL.+39.0m



Liner

The chimney has 2 carbon steel liners with Ø = 9,150mm each. The liner protection is borosilicate directly applied on internal surface.



Overview of the plant

The Jimah project is a 2000MW ultra-supercritical coal fired power station. FERBECK has been awarded an EPC contract of a 160 meter-high-concrete chimney and two 47 meter-high-concrete silos.