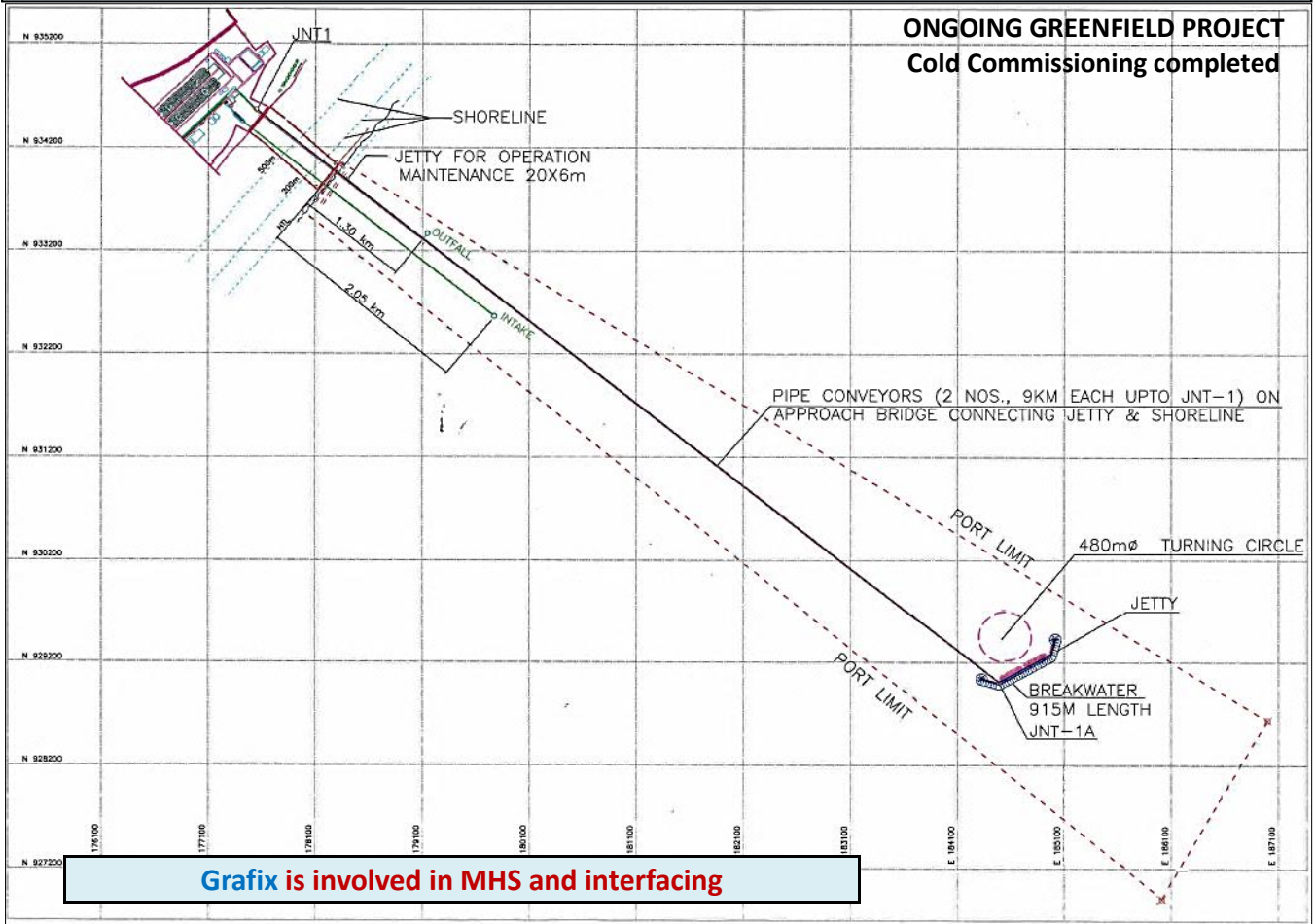


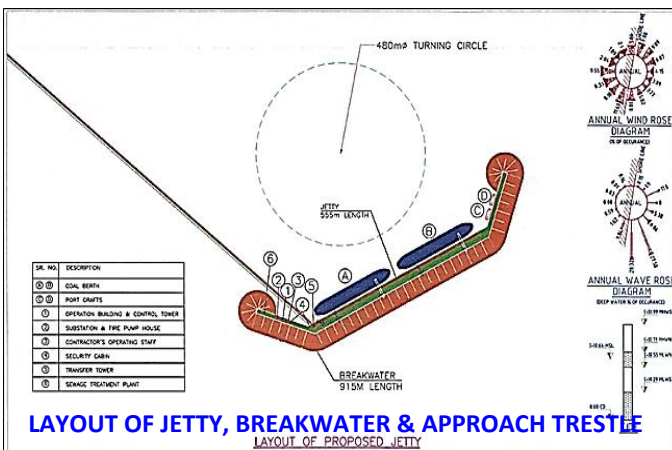
2x660 MW Udangudi Supercritical Thermal Power Plant of TANGEDCO, Tamil Nadu, India

CAPTIVE COAL JETTY, UNLOADING FACILITIES AND PIPE CONVEYORS



Involves

- Preparation of Overall Dimensional Layout.
- 2 Grab Unloaders of 2000 TPH each (+2 future)
- 2 x 9.5 km long Pipe Conveyors of 3000 TPH each & Jetty Conveyors
- 2 Substations, Power Distribution & Control System
- Associated infrastructure for MHS
- Design loads for Civil engineering
- PMC including assistance with commissioning



APPROACH TRESTLE CONNECTING SHORE LINE AND JETTY (9.5 KM AWAY)
(Grafix is involved in MHS and interfacing)

This is a **Greenfield Captive Port** for import of coal for the shore-based Power Plant from ships up to 120,000 DWT. The port is under construction by M/s ITD Cementation as the EPC contractor, involving

- 550 metre long Berth to be located in the sea around 8 km away from shoreline
- An island Breakwater for tranquility in front of the berth
- About 8 km long Transfer Trestle connecting Berth and shoreline
- 4 Unloaders, 2 in future, of 2000 TPH each
- 2 Pipe Conveyors, 3000 TPH each, of about 9.5 km long each connecting berth and Transfer Tower at shore, to interface with Power Plant conveyor

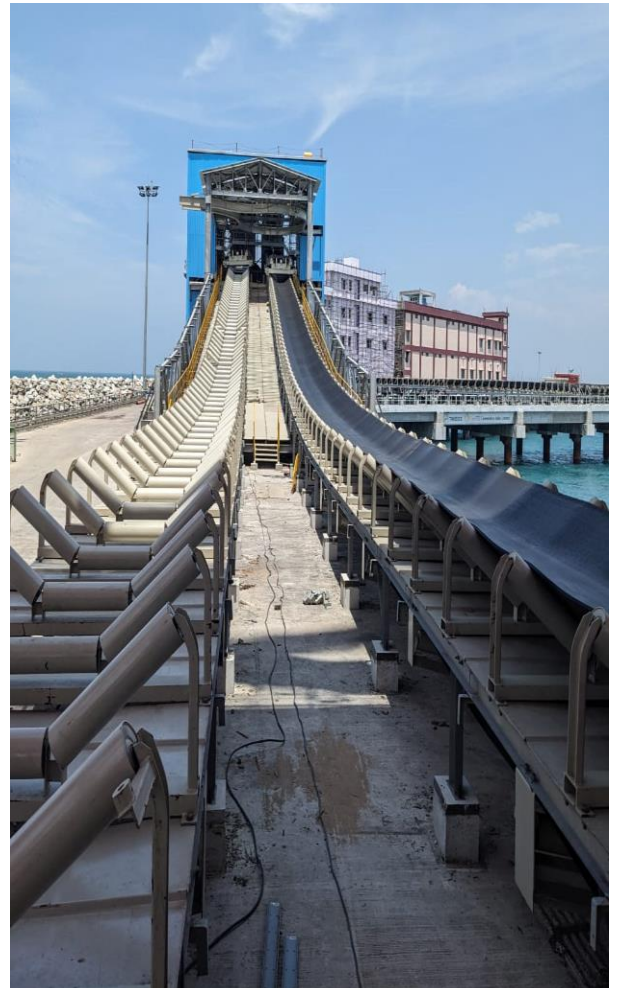
GrafiX has been engaged by M/s ITD Cementation India Ltd., the EPC Contractor for port development of Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO), as PMC Consultant, responsible for

- a. Establishing working co-ordinates, dimensions and alignment of the deep-water berth and the approach trestle connecting the berth and shoreline
- b. Defining the design loads and dimensions of the marine structures arising due to operational requirements
- c. Advising on the tendering approach for most cost and time effective procurement action
- d. Basic engineering of Top Facility covering Unloaders, Conveyors, Steel Structures, Electrical Power Distribution System including Sub-stations and Control System according to the decision on packaging.
- e. All activities starting from preparation of +Tender Documents of each package to reviewing Contractors submissions.
- f. Assisting in taking IE's approval, carrying out PG Test and handing over the port facility to the Owner.

Load trial is yet to be taken-up.



PIPE CONVEYORS, EACH OF ABOUT 9.5 KM LONG, TO TRANSPORT UNLOADED CARGO DISCHARGED BY BERTH CONVEYORS TO SHORE



CONVENTIONAL BERTH CONVEYORS INTEFACED WITH UNLOADERS



2 GRAB UNLOADERS OF 2000 TPH EACH ARRIVING AT THE JETTY