

PROPOSED TERMS OF REFERENCE

Introduction:

The dry bulk terminal at Tuna Tekra is developed by Adani Kandla Bulk Terminal Private Limited (AKBTPL) – a 100 % subsidiary of Adani Ports & Special Economic Zone Ltd (APSEZL) on Build Own Operate Transfer (BOOT) basis under concession agreement with Kandla Port Trust. The facility was commissioned on 10/02/2015. The existing terminal was designed to handle ships of 1,00,000 DWT drawing drafts of 15.0 m at its outer berth which required an approach channel width of 200 m and depth of 12.3 m.

The first vessel MV Sheng Ming was berthed on 09/02/2015 with a draft of 14.0 m making it the deepest draft bulk cargo vessel to be directly berthed at off shore facility. Berthing of a 14.0 m vessel at Tuna was a major milestone for Kandla Port however bulk cargo business especially coal is nowadays mostly handled on Cape-size vessels. So, to make it viable in the present business scenario, Tuna port will have to handle Cape-size bulk vessels of 2,10,000 DWT and above drawing drafts of 18.0 m.

Also, as berthing energy requirement of proposed capsized vessel is less than the existing berthing energy considered in design of berth, AKBTPL would now like to handle the cape size vessels up to 2,10,000 DWT.

To handle such cap size vessels, dredge depth of -15m CD; -17 m CD and -19 m CD is proposed for approach channel; turning circle and berth pockets (for berth 1 and 3) respectively. Width of approach channel will be increased from 200 m to 300 m. To achieve this draft, additional capital dredging is required to the tune of 7.68 million m³. Additional maintenance dredging will be required to the tune of 0.2 million m³ per year.

Location:

The existing offshore jetty of the dry bulk terminal is located at Latitude 22^o 53' 18" N and Longitude 70^o 06' 20" E. It is connected to the back-up area through 2 km piled approach and 1.7 km rubble mound approach. The proposed element of the project activity includes deepening and widening of the existing turning circles, berth pockets and approach channel (Refer Annexure – 1). The proposed dumping ground for the additional capital dredging as well as maintenance dredging will be at Latitude 22^o 47' 12.74" N and Longitude 70^o 02' 56.91" E (Refer Annexure – 1).

EIA Methodology

Methodology of the EIA study will involve following stages:

- Project description and justification on need for the project
 - Compliance of existing EC/CRZ clearance
 - Baseline environmental monitoring – only Marine environment
 - Identification and Prediction of Impacts of dredging
 - Numeric modelling study of dredging and dumping of dredged material
 - Environmental Management Plan
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- Project description and justification on the need for project
 - Back ground and present status about the existing project
 - Technical feasibility and need of the project activity
 - Identification of project location (dredging and dumping ground)

- Compliance of existing EC/CRZ clearance
 - Point wise compliance report of the Environmental and CRZ clearance granted by MoEF vide letter dated 01.11.2011
- Baseline environmental monitoring – Marine environment
 - Study period – Summer 2016
 - Study area (Sampling locations) – near jetty and dredging area
 - Physical; chemical and biological parameters as per the EIA guidance manual for ports and harbour
- Identification and Prediction of Impacts of dredging
 - Impacts of dredging and dumping of dredge material on marine environment
- Numeric modelling study of dredging and dumping of dredged material
 - Collection of oceanographic data
 - Hydrodynamic modelling study
 - Sediment transport modelling study
 - Dredge material disposal study
 - Sediment concentration study
 - Bed level variation study
- Environmental Management Plan
 - Identification of anticipated impacts
 - Mitigation plan for the adverse impacts, if any
 - Associated costs