



G H Patel College of Engineering & Technology, V. V Nagar



Department of Civil Engineering

Report on

Visit to “Deendayal Port Trust, IFFCO at Kandla and Adani Port at Mundra ”

Department of Civil Engineering, GCET had organized two day (26-27th March, 2018) educational visit to “Kandla Port and Mundra Port, Gandhidham”. A total of 33 students (Final year students) along with 3 faculty members, Dr. Snehal Popli, Prof. Poorav Shah and Prof. Ratansharan Panchal visited the units.

Aim of Visit:

The main aim of visit is to observe & understand the functions of ports and construction of ports.

About the Visit:

Kandla, also known as the **Kandla Port Trust** or **Deendayal Port** is a sea port in Kutch District of Gujarat state in western India, near the city of Gandhidham. It is Located on the Gulf of Kutch, one of major port on west coast. Kandla was constructed in the 1950 as the chief seaport serving western India, after the partition of India and Pakistan. Kandla Port Trust, India's busiest major port in recent years, is gearing to add substantial cargo handling capacity with private sector participation. The port has already received encouraging response from prospective bidders, for the project that is estimated to cost nearly 5,000 million INR.

First we visited the construction site of container parking. At the site we observed the construction of stone masonry walls. We saw the liquid storage tanks and studied the construction process of such huge storage tanks. We spent a couple of hours studying all the concepts. We saw construction of security office whose work was under progress. We saw raft foundation in one part, construction up to lintel level, cutting of steel bars, concreting etc. Raft foundation is carried out because of low bearing capacity of soil .i.e 5 tonne/m². We met Vice Chairmen Mr. Dinesh Singhaniya, Aegis Industries which is a private sector taking care of import, export, storage and distribution of non-petroleum products, chemicals, petroleum products, liquefiable petroleum gases at the Kandla Port.

We went IFFCO, Kandla, where we saw the marvelous structures which were constructed to carry harmful chemicals. The main products are Urea, Bio-fertilizer, water soluble fertilizer, which is manufactured at the site. We observed storage of potash in open atmosphere. We saw huge containers for the storage of sulphuric acid, Nitric acid and Phosphoric acid. We saw two

jetties for liquid transportation, which is owned by IFFCO itself. The important part of civil engineering i.e. retrofitting to old structures was going on.

After IFFCO, we went to Dendayal Port, Kandla. At the port we saw massive structural elements which were constructed to withstand strong forces of ships. We were amazed to see heavy cranes which were swinging in the skies of the site. We saw loading-unloading of urea, coal, Malaysian teak wood etc. We saw steel floating dry dock. And then we went to a site which port was under construction and pile work was going on for the 16th Jetty of the port. The construction is executed by AFCONNS Private Construction Company Ltd. We learned a lot of things there, including concepts of Gantry girders, pile foundations, fender piles, boring, pile caps, precast slabs, beller, and welding of steel piles. Jetty no. 16 is constructed in area of 55000x 30000 mm with 44 piles, Dia. Of each pile is 1300-1400 mm and depth of pile 34 m. We spent about three hours at this site.

On the next day, at around 9 AM we started our journey to Mundra Port. After security checks, we entered Mundra Sez which was covered on 15000 Ha of land. Mundra port was founded in 1998. It is the largest private port in India. Its capacity is around 100 million metric tons. It is having 70 km double railway track of its own. In one hour 60 containers are loaded and unloaded on the container jetty. We saw loading of cars, huge dry material storage sheds, and huge ships. We also saw water maker from capturing moisture of the atmosphere. We saw heavy machineries and loading and unloading of huge ships.

It was truly an amazing experience and most fruitful visit. We are also thankful to Mr. Mukesh Bhate, Mr. Rajesh Israni, Mr. Sandip Malhotra, Mr. Mahesh Lilvani, and Mr. Shailesh Rathod for making all the necessary arrangements and explanations during the visit.