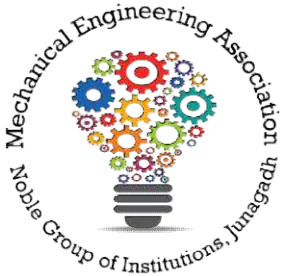


GUJARAT TECHNOLOGICAL UNIVERSITY

Chandkheda,
Ahmadabad
Affiliated



Noble Group of Institutions Junagadh



A

Report On
Industrial Visit at

Gujarat State Electricity Corporation Limited Kutch



Visit Date

4th August, 2017

Under the preference of

Mr. Dilip Gondha

(In house trainer)

Faculty Guide

Prof. Akash Raiyani and Prof. Ashish Vasiyar

Head of the Department

Prof. Vasim G. Machhar

Acknowledgements

We hearty thank all the operators and members of GSECL- Kutch to give us permission for the visit of the power plant.

It was very helpful for every student to gain knowledge related to power plant and its components. We also thank all the members who stayed with the students and provide them all the help they needed.

Lignite Based Thermal Power Plant – Kutch (GSECL)



As per the educational purpose of the final year students of Degree Mechanical Engineering, an industrial visit was organised at Lignite Based Thermal Power Plant in Kutch operated by Gujarat State Electricity Corporation Limited (GSECL) on 4th August, 2017. There were 48 students who took part in the visit with two Faculty Guides from Mechanical degree engineering department. Whole visit was under the preference of Mr. Dilip Gondha.

The main aim of the visit was to deliver practical knowledge to students related to major components of the power plant such as Boiler, turbines, heat Exchangers, Water Filtration Plant, Coal Handling etc.

In this Power Plant there are four different plants. In which first two Units are of 70 MW (Mega Watt) and other two units are of 75 MW (Mega Watt). There are mainly four sections in plant, first is Water Purification RO plant, second one is Burning of Lignite coal in Boiler section, third one is Power generation in Turbine section, and final fourth one is to transmit and converting the generated power in to required power form in to the switch yard section.

First of all the students had a detailed explanation of Boiler and its whole working process and construction. The operators and workers at the boiler humbly responded to each and every question asked by the students.

In the next session water filtration and removal of dirty water was explained which contained process of reverse osmosis and making it useful for power generation. In between every session various knowledge about power generation, distribution of electricity in different areas and consumption of energy was given to the students.

After a session a short lunch break was provided at the canteen of the power plant.

After the lunch break, Coal handling system was shown to the students. In which the process of carrying coal from the storage and converting it to the powder form and using it in the boiler as a burning fuel was shown practically.



In the next session all the electrical units AMF circuits were shown and explained. All the transformers and poles which carry electricity to different areas were also shown.

Switch yard

The next step after the power generation is to supply the electricity to the places where it is required. This step is done in the switch yard. In the switch yard there were many transformers which help the electricity to reach out to different places. Here, the students were taught about the whole process of power supply to the required places.



Condenser room

A condenser is a device or unit used to condense a substance from its gaseous to its liquid state by cooling it. Therefore it is very necessary to have a condenser in the power plant. In this power plant there was a separate condenser room provided for the process here the students learnt the process of condensing of steam which helps in the further process.

