USHA RAMA COLLEGE OF ENGINEERING AND TECHNOLOGY
TELAPROLU

Report on Industrial Visit to
Dr. Narla Thata Rao Thermal Power Station

Visit Details:
Total no. of students visited plant: 29

Date of Visit : 07/10/2022

FACULTY MEMBERS:
Name of the faculty : CHINTHAKINDA SASIKALA

REPORT

We, the students of 2nd and 3rdyear EEE of USHA RAMA College of engineering and technology, as a part of industrial tour we visited the renowned Dr. Narla Tata Rao Thermal Power Station (NTTPS), located at Ibrahimpatnam near Vijayawada.

29 Students accompanied by 1 faculty members started at our college by 8: 40 am in one bus. We reached Vijayawada by 10:50 am, and there after training person explain the overview of thermal plant and working ,and there after we had our lunch, thereafter reached the power station by 2:10 pm. Due to some security issues we entered the power plant by 02:40 pm. The requirements at the main gate are:

1. A copy of Request letter by the college (duly signed by the Head of the institute)
2. A copy of approval letter issued by Dr. NTTPS &
3. Allotted guide must be present at the main gate
4. Safety precautions like Helmets & shoes for every student and faculty
5. List of students with names, Regd. No's
6. List faculty accompanied & their mobile numbers
7. Vehicle numbers & name of the drivers

About the plant:

Dr. Narla Tata Rao Thermal Power Plant is also known Vijayawada Thermal Power Plant. It was developed under 4 stages, with the project cost of Rs 193 Crores and Rs 511 Crores respectively. Again with an investment of RS 840 Crores 2 units were commissioned under III Stage. The seventh unit of 500 MW was commissioned in 2009. The station stood first in country during 94-95, 95-96, 96-97, 97-98 and 2001-02 by achieving the highest plant load factor. The station has received many prestigious awards from various organizations.

Capacity of the plant:

Stage	Unit Number	Installed Capacity (MW)
Stage I	1	210
Stage I	2	210
Stage II	3	210
Stage II	4	210
Stage III	5	210
Stage III	6	210
Stage IV	7	500
Stage V	8	800

Working of the plant:

The power plant is categorized into 4 houses based on its functioning.

At first we visited coal storage and coal handling station. The coal brought through wagons are automatically lifted by mechanical arms and sent to boilers through underground conveyor belts. The motors used are induction motors.

In the second stage the coal is pulverized into smooth powder and fed to boiler along with crude oil,

water and air.

The third stage consists of a set of three parts, each containing a low pressure, high pressure turbines coupled with an alternator and each has generating capacity of 210 MW.

Figure: name plate details of 210 MW unit (BHEL Make)

In the final stage we visited the turbo generator. At Last we visited the UCB Room Unit control Board Room where the whole process is monitored by control board members and at the time of emergency they will inform the authorities concern.

Even though we started late they explained everything by sparing their valuable time up to 7:00 pm. we started our return journey and reached our college by9:00 pm.

Acknowledgement:
We thank our management, Principal, Vice-Principal, Head of the Department & faculty for providing such a wonderful opportunity. We expect more such visits in future.

Thanking you

II EEE students
III EEE Students


RANKINE CYCLE