

**Date(s) of Visit :** 1h 25-08-2022

**Faculty Incharges :** 5members

1. Smt. Ch.Komala Lakshmi., Asst.Prof. Lec. In Physics
2. Sri.G.Prasad Babu., Asst.Prof. Lec. In Physics
3. Dr.K.Bhargavi., Asst.Prof. Lec. In Physics
4. Sri.J.Niranjana Rao., Lec. In Physics
5. Sri.Ch.Ch.Srinivasu. Lec. In Physics

**No. of Students :** - 53members,

**Reporting Time :** 10:30A.M, 25-08-2022

**Session closing Time :** 02:00P.M,

The Assistant Engineer permitted us at 11:20 A.M and provided two Maintenance Engineers for Explaining the Plant Details .Firstly the Deputy Safety Manager Sri. R.Srinivas instructed the students regarding the safety practices to be followed in the plant premises. After that they explained the details of Equipments and its functioning in plant. They also explained the functioning of a gas turbine in a combined cycle power plant and functioning of switch yard. Finally we checked out at 2:00 P.M after through observation of the plant and we came back to college at 3:30 P.M.

### **Introduction**

**On 25-08-2022 , 53 students Of II B.Sc MPCs physics stream students and 5 faculty members are went to Gas Thermal Power Plant, located in Vijjeswaram, east Godavari.**

### **Objective of the trip:**

The main objective of the trip is to enhance the practical knowledge on working of the gas turbine to produce electricity.

### **Field observation:1.**

- There are two 220KV switch yards for Stage-1 &2 A switch yard is used to evacuate power from 100MW power plant of stage-1 & 172MW power plant of stage-2 to the transmission system. Connection to the existing transmission system is achieved for all four feeders through a LINE IN LINE OUT (LILO) arrangement.

- The generation voltage is 11.5KV, which is stepped up through generator transformer of 11.5/230KV rating. The main 220KV bus is MOOSE conductor and is rated for 800A, 40KA for 1sec. The Transformer feeders are connected to the switchyard through overhead conductors. The circuit includes, lightning arrestors, isolators (with earth switch), current transformers, potential transformer, circuit breaker & isolators.
- The 220KV switch yard in GTPS stage-1 is the single bus outdoor switch yard with 4 feeders, 2 line feeders & 2 transformer feeders, they are GTG transformer feeder STG transformer feeder Bommuru feeder Bhimadolu feeder The 220KV switch yard in GTPS stage-2 is the single bus outdoor switch yard with 6 feeders, 4 line feeders & 2 transformer feeders, they are GTG transformer feeder STG transformer feeder Bommuru-2 feeder Bommur-3 Feeder K.KOTA feeder Nidadavolu feeder

**Conclusion:**

Our trip ended about 2 pm. It can be concluded that it was successful. The students are learnt about the working of gas thermal power plant and gain the practical knowledge also in the part of thermodynamics and matter of physics course academic curriculum.



**Andhra Pradesh  
Gas Power Corporation Ltd.**

**Lr. No. VP/AE/Tech/F-52/ D.No: 1560 122, Dt: 24.08.2022**

To  
**The Principal**  
Government College (A)  
Rajahmundry-533105

Sir,

Sub: APGPCL - Vijjeswaram-Permission to visit the power plant- Accorded.

Ref : Lr. No. Spl-1/Dept. of Physics/Educational Trips/202, Dt. 22.08.2022

\*\*\*

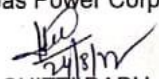
With reference to your letter cited, permission is hereby accorded to visit the Gas Turbo Power Station, Vijjeswaram on 25.08.2022 for 50 Nos. Degree Final year students and 03 Nos. Faculty members of your college subject to the following conditions and duly following the Covid-19 precautions.

**Terms & Conditions :-**

- 1 The permission now accorded is subject to alterations or cancellation according to the exigencies in the plant.
- 2 Damages are to be born by your Institution if any loss/damages occur with the Students/staff.
- 3 Strict discipline shall be observed and subject to security and vigilance check.
- 4 The members permitted shall be subjected to rules and regulations of the plant.
- 5 Your are requested to furnish the name of the students/staff proposed to visit the Power house on or before their date of visit for our information and record.
- 6 You should ensure that the students should not cross the green/yellow borders indicated in the power plant in view of safety.
- 7 Mobile phones, cameras and laptops strictly prohibited in to the plant premises

Thanking you,

Yours faithfully  
For AP Gas Power Corp. Ltd.,

  
M. CHITTI BABU  
VICE PRESIDENT  
VIJESWARAM.

C.C: The Plant Manager /OEG/APGPCL/VJJM  
C.C: The HR Manager/OEG/APGPCL/VJJM  
Copy to: The Safety Officer/OEG/APGPCL/VJJM  
Copy to: The Security In-charge/GTPS/VIJJM.

Gas Turbo Power Station, Vijjeswaram-534 350, W.G.Dist., A.P.  
Phone: 08813-285406, Fax: 08813-285408, E-mail: gm\_apgpcl@yahoo.com  
H.O.: # 201, 2<sup>nd</sup> Floor, My Home Sarovar Plaza, Secretariat Road, Hyderabad- 500 063.  
Phone: 040- 2323 3387 / 2323 6591, Fax: 040 - 2323 3693, 2323 0878



Anpara B



