

Industrial Visit Report

On

Sugar Factory – Bardoli & Birla Nu Limited, Valod



Details of Visit

Plant: Sugar Factory – Bardoli & BirlaNuLimited,Valod

Location: Bardoli

Date of Visit: 7/03/26

Time: 8:30 am to 5:30 pm

Faculties: BrijeshNaik, JayanaRana, Nilesh Patel

Students: 2nd and 3rd year students of B.Tech.(IC)-total 38 students

A) Sugar Factory – Bardoli

1. Introduction

An industrial visit was organized to the Bardoli Sugar Factory to provide practical exposure to students about the manufacturing process of sugar from sugarcane. The visit helped us understand the industrial operations, machinery, and quality control methods used in the sugar industry.

The sugar industry plays an important role in the agricultural and industrial economy of India. The factory processes sugarcane collected from nearby farmers and converts it into different sugar products using modern machinery and techniques.

2. Objectives of the Visit

The main objectives of the industrial visit were:

- To understand the **sugar manufacturing process**.
- To observe the **industrial machinery and equipment** used in production.
- To gain knowledge about **quality control and safety practices**.
- To understand **waste management and by-products** of sugar production.

3. Sugar Manufacturing Process

The sugar production process observed during the visit includes the following steps:

- 1. Cane Reception:** Sugarcane brought by farmers is weighed and unloaded at the factory yard.
- 2. Cane Preparation :** The sugarcane is cut and shredded using machines to prepare it for juice extraction.
- 3. Juice Extraction:** Crushing rollers extract juice from the sugarcane.
- 4. Juice Clarification:** Impurities are removed by heating and adding chemicals such as lime.
- 5. Evaporation:** The clarified juice is heated to remove excess water and convert it into thick syrup.
- 6. Crystallization:** The syrup is processed in vacuum pans to form sugar crystals.
- 7. Centrifugation:** Machines separate sugar crystals from molasses.
- 8. Drying and Packaging:** The sugar is dried, graded, and packed into bags for distribution.

Important by-products produced in the factory include:

- **Molasses** – used in alcohol production
- **Bagasse** – used as fuel in boilers
- **Press Mud** – used as fertilizer

These by-products help in reducing waste and improving industrial efficiency.

4. Learning Outcomes

From this visit, we learned:

- The complete **industrial process of sugar manufacturing**
- Importance of **automation and machinery in industries**
- Role of **quality control and safety measures**
- Utilization of **by-products for sustainable production**

B) BirlaNu Limited

1. Introduction

An industrial visit was organized to BirlaNu Limited to understand the industrial production process and management of building materials manufacturing. The visit provided practical knowledge about modern manufacturing techniques, quality control, and safety measures used in industries.

BirlaNu Limited is a part of the **CK Birla Group** and is known for manufacturing a wide range of construction and building materials such as pipes, putty, roofing sheets, building blocks etc.

2. Objectives of the Visit

The main objectives of the industrial visit were:

- To understand the **manufacturing process of building materials**
- To observe **industrial machinery and equipment**
- To learn about **quality control and testing procedures**
- To understand **safety practices in the industry**

3. Manufacturing Process (General Overview)

During the visit, the following steps of the production process were observed:

1. Raw Material Collection: Raw materials such as cement, sand, chemicals, and polymers are collected and stored in large containers.

2. Mixing Process: The raw materials are mixed in automatic machines according to required proportions.

3. Moulding / Forming: The mixture is shaped into products such as pipes, sheets, or blocks using moulding machines.

4. Drying and Curing: Products are dried or cured to increase their strength and durability.

5. Finishing Process: Products are polished, cut, or coated to improve quality and appearance.

6. Quality Testing: Samples are tested in laboratories to ensure they meet industrial standards.

7. Packaging and Storage: Finished products are packed and stored before being distributed to markets.

4. Learning Outcomes

From this industrial visit, we learned:

- Practical knowledge of **industrial production processes**
- Importance of **quality control in manufacturing**
- Industrial **safety and management systems**

Photos:





Report prepared by : Jayana Rana