

Academic Year 2022-2023

ANITS INNOVATION COUNCIL IN ASSOCIATION WITH DEPARTMENT OF CIVIL ENGINEERING

Date of the Visit: 24th December 2022

As a part of the IIC, ANITS Innovation Council in Association with the Department of Civil Engineering organized an Industrial visit to water treatment plant [Water Supply Godavari, Narava, Visakhapatnam] to gain a better understanding of the water treatment process and the measures taken to ensure the safety and quality of the water supplied to the public.

On 24th December 2022, at 09:30 AM, a team of 37 students reach water treatment plant in Narava. At starting Mrs. PVR Sravya faculty coordinator department of civil engineering gave the basic knowledge about the treatment process and explain the students about that before arriving at your tap, water is treated at the water treatment plant to remove sediments, battery, another impurities. Water source is from the Godavari River flow through 914 mm to 711 mm diameter pipes. Tune of water treatment plant which treats water up to. Bridgewater up to 33 MGD. That is 150 MLD of water per day.



Mrs. Sravya faculty coordinator department of civil engineering gave the basic introduction about purification of water

The visit was informative, and I gained valuable insights into the plant's operations and the challenges faced by the plant's staff.

Overview of the Plant:

The water treatment plant had a large compound with several buildings and treatment facilities. The plant had treated to meet the standards set by the GVMC regulatory bodies.

The water treatment process involved several stages, including:

Coagulation and Flocculation: Chemicals were added to the water to help particles clump together and form larger particles called floc.

Sedimentation: The water was then allowed to sit in large tanks, where the floc settled to the bottom.



Students observing sedimentation process

Filtration: The water was then passed through layers of sand, gravel, and activated carbon to remove any remaining impurities.

Disinfection: The water was then treated with chlorine to kill any remaining bacteria and viruses.

Distribution: The treated water was then pumped into the distribution system to be supplied to consumers.

Quality Control Measures:

The plant had several quality control measures in place to ensure that the water supplied to the public met the required standards. The water was tested at different stages of the treatment process, and samples were taken from the distribution system to check for any contamination. The plant also had a contingency plan in place in case of any emergencies, such as a breakdown in the treatment process or a natural disaster.

Objectives:

- Students were able to Understanding the water treatment process
- Students were able to assessing the quality control measures followed in the treatment plant

- To learn about the regulations governing water treatment plants and the responsibilities of the plant operators.
- To understand the importance of water conservation and the measures taken to ensure efficient water use.

Conclusion:

The visit to the water treatment plant was an enlightening experience. Students gained a better understanding of the water treatment process and the measures taken to ensure the safety and quality of the water supplied to the public.

Sravya P.V.R.

P.V.R. Sravya
Faculty Coordinator,
Dept of Civil Engg., ANITS

S. Ratan Kumar
IIC Convener,
ANITS

Academic Year 2022-2023

ANITS INNOVATION COUNCIL IN ASSOCIATION WITH DEPARTMENT OF CIVIL ENGINEERING

Date: 04-11-2022

As a part of the IIC, ANITS Innovation Council in Association with the Department of Civil Engineering organized an Industrial Visit to Ready Mix Concrete Plant (RMC), Madhurawada, Visakhapatnam on 04th November 2022, at 10:00 AM all the 3rd year Civil engineering student of 70 members were reached the plant. Firstly all students were divided in to two batches of 35 each along with faculty coordinator.

As per safety norms all the students were cautioned with precautions and safety elements of plant. Ms. Srivani, Engineer at plant had explained every thing in detail related to how plant is processing Ready mix Concrete how the raw materials were preseving and its new products used in RMC. She showed laboratory test demo on pre-casted concrete cube. and she explained various IS Codes they follow as a part of quality control.



Ms. Srivani along with Dr Balendra Mouli (IIC-Coordinates) is explaining about quality control of RMC

Krishna kishore R, Head - Operations of RMC plant was explained various tests and New generation concretes available at Ultratech Plant. Students observed various Stabilizers such as GGBS, Flyash, Steel fibers, Thermocon material, Micro silica..etc. Earlier students

have theoretical knowledge about these stabilizers and Plastisizers, Now they exposed in plant Visually.

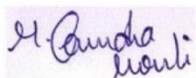
Objectives:

The main objective of the visit is to give the practical knowledge about how mix design is done in field and various types of New generation concretes used in field. With this visit students can be familiar with industrial environment and get knowledge of different units of Ready mix Concrete plant. By the time the industrial visit has conducted the students of III year are familiar with Building materials and Concrete Technology and few aspects of Reinforced Cement Concrete. so that they can get familiarity themselves with the actual process that is going on in the field with the theoretical knowledge they gained in the classroom. Some of the main objectives were listed below

- Every student understand the entire production process of concrete. It provide insights into the different stages involved in the production process, from raw materials to final product, and the machinery and equipment used.
- It helps all the students to assessing the quality control measures in place to ensure that the final product meets the required standards. This includes assessing the testing procedures used, the equipment used for testing, and the frequency of testing.
- It helps in understanding the sustainability practices adopted by the plant, such as the use of alternative materials and the reduction of waste and carbon emissions.
- Familiarizing with safety protocols

Conclusion:

From this visit Students get information and practical knowledge about the Ready mix concrete components used in plant and got knowledge about detailed process of mixing, Transportation and Quality Control process. The visit was nicely completed by group photo at 2:00 PM.



Dr. Balendra Mouli M
IIC-Coordinator,
Dept of Civil Engg., ANITS

S. Ratan Kumar
IIC Convener,
ANITS



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V937+C88, Vizag - Srikakulam Hwy, Opp. Narayan College, Visakhapatnam, Andhra Pradesh 530048, India

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Visakhapatnam
Andhra Pradesh
India

2022-11-04(Fri) 11:27(AM)

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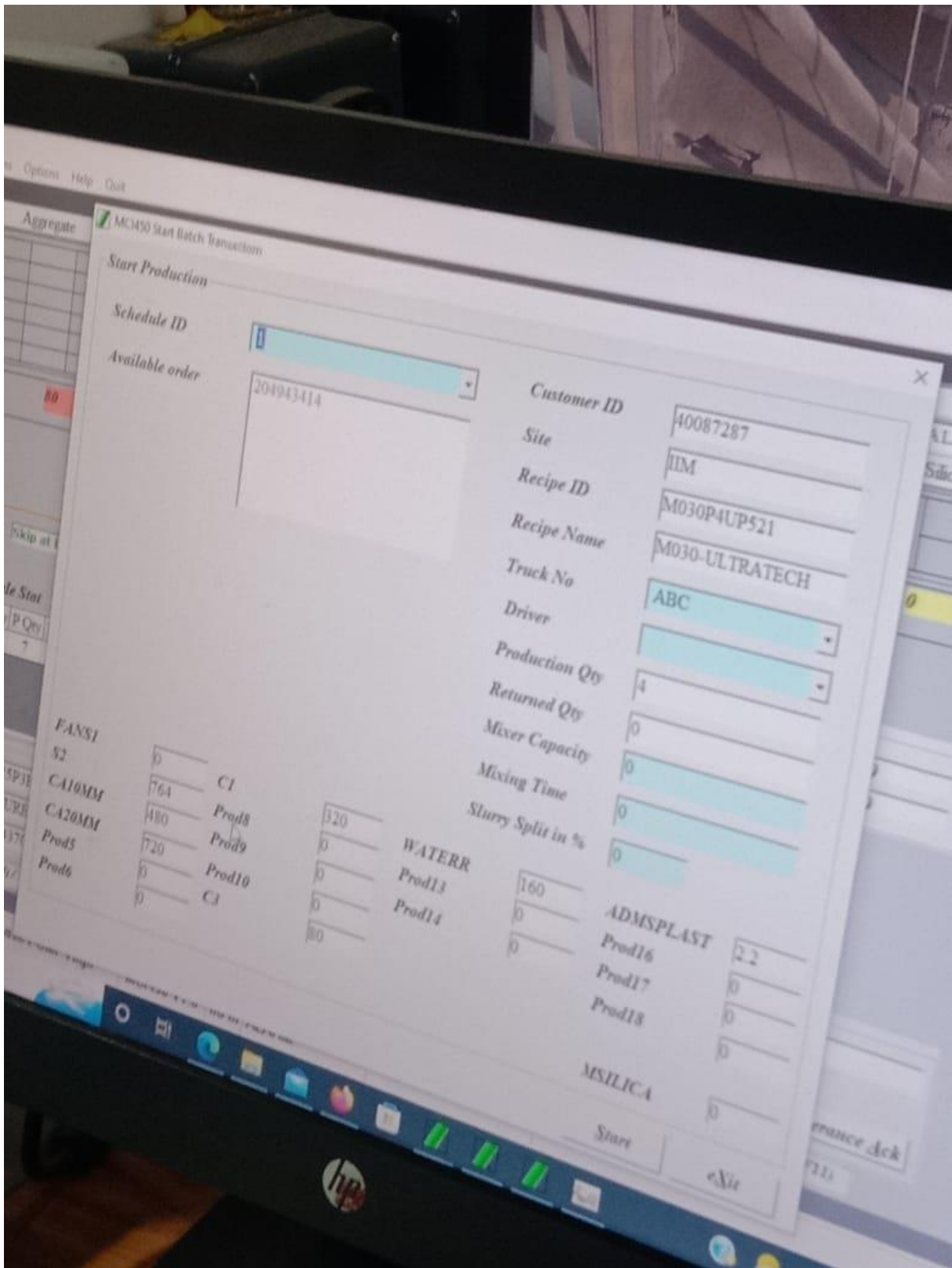
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portal

Purchase order Sales Order Scheduling **Ticketing** Reports Quotation Order Short Closure

Bom Display Remarks:

Material #	Material Desc	Quantity	UOM	Valid From	Valid To
GGBS	GGBS	170	KG	20 07 2022	31 12 9999
ADMSPLAST	SUPER PLASTICIZER	1,560	G	20 07 2022	31 12 9999
CA12MM	AGGREGATE 12 MM	487	KG	20 07 2022	31 12 9999
CA20MM	AGGREGATE 20 MM	762	KG	20 07 2022	31 12 9999
FAMS	MANUFACTURED SAND	798	KG	20 07 2022	31 12 9999

Row 1 - 5 of 7

Price: 4,300.85
Slump: 125+

Effective From:
Structure: SLAB

Close

Transfer Order #:





(Mrs. P.Sumanjali)

Faculty Coordinator

(Dr. B.N.D. Narasinga Rao)

HoD, Civil

1. To gain an understanding of the production process for ready-mixed concrete, including the equipment and materials used.
2. To observe the mixing and delivery of concrete and learn about the quality control measures in place.
3. To identify the various types of concrete mix designs used in construction projects and their respective properties.
4. To understand the importance of batching and proportioning of ingredients in the concrete mix.
5. To learn about the testing and quality control procedures used to ensure that the concrete meets the required specifications and standards.
6. To understand the environmental and sustainability considerations in the production of concrete, such as the use of recycled materials and energy efficiency.
7. To observe the safety protocols and measures used in the plant to protect the workers and the public.
8. To learn about the different types of concrete admixtures used to enhance the properties of concrete.
9. To understand the challenges and issues facing the concrete industry, such as supply chain disruptions and changes in customer needs.
10. To appreciate the importance of customer service and communication in the ready-mixed concrete industry.

1. To understand the environmental impact of the concrete production process and identify potential sources of pollution, such as dust, noise, and water runoff.
2. To observe the measures in place to minimize pollution, such as dust suppression systems, noise barriers, and stormwater management.
3. To learn about the best practices for handling and storing raw materials and chemicals used in the production process to minimize the risk of pollution.
4. To understand the impact of air pollution on the surrounding environment and communities, and to learn about the emission control systems used in the plant.
5. To learn about the methods used to reduce the carbon footprint of concrete production, such as using alternative fuels and energy-efficient technologies.
6. To understand the regulatory requirements related to pollution control in the concrete industry and the measures taken by the plant to comply with them.
7. To observe the safety protocols and measures used in the plant to protect the workers and the public from pollution hazards.
8. To understand the challenges and issues facing the concrete industry related to pollution control, such as changing regulations and community concerns.
9. To appreciate the importance of sustainability and pollution control in the concrete industry and the steps taken by the plant to promote environmental stewardship.
10. To learn about the methods used to monitor and report on pollution levels from the plant, including self-monitoring programs and reporting to regulatory agencies.