



L. J. Institute of Engineering & Technology

LJ Campus, Near Sanand Sarkhej Circle, S.G.Highway

Ahmedabad

Industrial Visit Report

Department of Civil Engineering

Date of Visit - 24/03/2018

Place - Kotarpur Waterworks, Ahmedabad

Duration of Visit - 4 Hours

BE Semester: VI Sem

No. of Students Participant in Visit: 68

Name of Faculty members: (Ms. Seema Soni) (9978655423)

(Ms. Zalak Bhavsar) (9427416296)



Information about Place/Company Profile:

- 650 MLD water treatment plant was constructed from 1983 to 1987
- 165 MLD Intake well-1 at Kotarpur Water Works was constructed & commissioned at the cost of Rs. 2.02 crores in year 2003
- 330 MLD Intake well-2 at Kotarpur Water Works was constructed & commissioned at the cost of Rs. 8.4 crores in year 2006 under JnNURM project.

Observations during the visit:

- We visited the newly developed treatment plant of 200MLD capacity
- It uses a sophisticated software system to monitor the flow & other parameters associated with each treatment unit.
- This allows the supervisor to sit in the control room & check the parameters in the treatment plant & monitor any problems arising in the treatment process
- In the beginning of process, raw water from different suppliers is collected in intake tank.
- There were total of three units for treatment of water, so this stored water is divided into three units using pipes
- In summer, raw water has 5 NTU, but in winter or monsoon, it has about 10 NTU. So in order to maintain this value, chemical dosing is used.
- In this process, aluminum sulphate alum is dozed on water which changes the color of water.
- Alum is sprayed on water so that it gets mixed. The ratio of alum is 1:10.
- More than 90% impurities are removed till now
- Types of filter used: 1) decline rate type & 2) gravity sand filter.
- In order to clean the filter media so that it does not get choked, process called backwashing is used. Here the water is allowed to fall on filter media from bottom to top and thus filter media gets cleaned. This process is repeated every 6 weeks for maintenance.
- The last stage of treatment is chlorination. Basic task of this is to remove bacteria, viruses and smell from water to make water ammonia free

Subject/s or topic related to visit: Water & Wastewater Engineering

Outcomes/Understanding from the visit:

- The students were fascinated with the overall working of the treatment plant
- They got to see the actual implementation of the theory they studied in their syllabus
- The students gained practical knowledge regarding the subject of Water Treatment

Feedback of Students:

- Overall the students were very satisfied with the visit & experience
- The staff of the Kotarpur Treatment Plant solved all doubts & queries addressed by students



Clariflocculator



Intake structure

Name of H.O.D. : Ms. Zalak Bhavsar Prepared By: Ms. Seema Soni

Name of Department: Civil Engineering

Sr. No.	Date of visit	Semester	Name of Company/Industry	Address	No. of students participated	No of faculty participated	Remarks
1	24 th Mar,2018	VI	Kotarpur Waterworks	Ahmedabad	68	2	-