



A Report on Industrial Visit to “GNFC (Gujarat Narmada Valley Fertilizer & Chemical Limited), Bharuch

Industrial visit was held on 31/01/2019, total 51 students of 4th year (8th Semester-2015 batch students) chemical branch have benefitted from this visit. The visit was conducted by Prof. Vishal U. shah, Mr. Svapnil Kevat.



Students with Mr. Jigar Rabari (From Designing Team)

INTRODUCTION OF GNFC

Gujarat Narmada Valley Fertilizers & Chemicals (GNFC) is an Indian manufacturer of fertilizers and Chemicals. GNFC was founded in 1981 and it is listed on Bombay Stock Exchange. The company was jointly promoted by the Government of Gujarat and the Gujarat State Fertilizers and Chemicals (GSFC). Located at Bharuch in a prosperous industrial belt, GNFC draws on the resources of the natural wealth of the land as well as the industrially rich reserves of the area.

Gujarat Narmada Valley Fertilizers & Chemicals Limited. (GNFC), is a joint sector enterprise promoted by the Government of Gujarat and the Gujarat State Fertilizers & Chemicals Ltd.(GSFC). It was set up in Bharuch, Gujarat in 1976. Located at Bharuch in an extremely prosperous industrial



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GNFC started its manufacturing and marketing operations by setting up in 1982, one of the world's largest single-stream ammonia-urea fertilizer complexes. Over the next few years, GNFC successfully commissioned different projects - in fields as diverse as chemicals, fertilizers and electronics.

Since inception, GNFC has worked towards an extensive growth as a corporation. A growth which respects the environment and springs from the progressive vision of GNFC. GNFC today has extended its profile much beyond fertilizers through a process of horizontal integration. Chemicals/Petrochemicals, Energy Sector, Electronics/Telecommunications and Information Technology form ambitious and challenging additions to its corporate portfolio. GNFC has an enterprising, strategic view towards expansion and diversification.





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PRODUCT DESCRIPTION

GNFC Plants Installed capacity and Technology Collaborations :		
Plant	Installed Capacity	Technical Collaborator
Ammonia	4,45,500 MTA	Air separation, Rectisol and Nitrogen wash units as well as total engineering of the integrated plant - Linde AG, Germany - Fuel Oil Gasification - GE, USA - CO Shift Conversion-BASF, Germany. - Ammonia Synthesis - Haldor Topsoe, Denmark.
Urea	6,36,900 MTA	Saipem, Italy
Ammonium Nitrophosphate	1,42,500 MTA	BASF - Germany
Calcium-Ammonium Nitrate	1,42,500 MTA	UHDE, Germany
Methanol-I	50,000 MTA	ICI, UK & Linde AG, Germany
Formic Acid	10,000 MTA	Kemira OY, Finland
Methanol-II	1,88,100 MTA	ICI, UK & Toyo Engg., Japan
MSU	30,600 MTA	In-House
Weak Nitric Acid (I & II)	3,47,500 MTA	UHDE, Germany
Concentrated-Nitric Acid (I & II & III)	1,16,000 MTA	Plinke, Germany
Acetic Acid	1,00,000 MTA	BP Chemicals, UK
Synthesis Gas Generation Unit	201.960 Million NM3 per annum	Jacob, UK and H & G
Captive Power Plant I & II	3,96,000 MWH per annum	BHEL, India



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Nitrobenzene (NB)	47250 MTPA	Chematur Engineering AB, Sweden
Aniline	35000 MTPA	Chematur Engineering AB, Sweden
Toluene Di-isocyanate (TDI)	14000 MTPA	Chematur Engineering AB, Sweden
Di Nitro Toluene (DNT)	18356 MTPA	Chematur Engineering AB, Sweden
Meta Toluene Di-amine (MTD)	11804 MTPA	Chematur Engineering AB, Sweden
CPSU	2,84,515 MWH	BHEL, India
Ethyl Acetate	50,000 MTA	KBK, India
ASGP	369,600 MTA Eq. Ammonia	Haldor Topsoe, Denmark
TDI-II Dahej Project	50,000 MTA	Chematur Engineering AB, Sweden

STUDENTS GOT OPPORTUNITIES TO SEE FOLLOWING MACHINERY

- PSA (Pressure Swing Absorption)
- Agitated Vessel
- Distillation Column
- Continuous Process Plant
- Batch Process Plant
- Centrifugal Pump
- High Pressure Pump
- Induced Draft Cooling Tower

SPECIAL THANKS TO

- Mr. A. K. Sahani (General Manager, GNFC & Chairmen IICHE-ARC)
- Mr. S. I. Thakar (General Manager, GNFC & Vice Chairmen IICHE-ARC)
- Mr. A. I. Shaikh (Senior Manager in Project, GNFC)
- Mr. R. R. Khandpur (Senior Manager PMG, GNFC & Secretary IICHE-ARC)
- Mr. R. M. Upadhyay (GNFC, Bharuch)
- Mr. Jigar Rabari (GNFC, Bharuch)