

## **Brief Profile of Shri A B Khare**

Shri A.B. Khare is a Chemical engineer with BE (Chemical) degree from University of Roorkee (Now IIT Roorkee) in 1978. He also completed three out of four semesters course work for ME Chemical (Equipment & Plant Design) from the same institute. He joined RCF as Management Trainee in 1980 and served in various capacities in several plants before finally reaching to the position of Chief General Manager (Commercial).

In the year 1990, under UNIDO programme, he was sent to USA for 3 months period, where he completed one semester course work at Purdue University on simulation, optimization, advance control and artificial Intelligence.

During his tenure in various plants he made many records for the highest production and lowest energy consumption etc., and also won several awards.

He also conceptualized and implemented various modification schemes resulting in energy saving, efficiency improvement and monitory saving, few of them are listed below:

- Instrumental for increase in production capacity of Ammonium Nitrate (AN) from 150 MTPD to 400 MTPD by introduction of frequent hydro jet cleaning of AN evaporators in Ammonium Nitro Phosphate(ANP) Plant
- Instrumental in stoppage of one CCT cooling water pump, Instrument air compressor resulting in power saving and diversion of condensate of AN evaporator to steam generation plant in ANP Plant leading to condensate saving
- Instrumental in Installation of Variable frequency drive for Calcium Nitrate(CN) Pump to avoid flow control valve and this VFD also resulted in reduced pump maintenance and achieved stable CN flow control
- Conceptualized and installed Makeup Gas Chiller in Tr-V Ammonia and Methanol Plant leading to increased production of Ammonia and methanol
- Conceptualized and installed Advance process control system in Methanol Plant resulting in reduced energy for methanol production
- Conceptualized and installed three bed axial radial Casale's Ammonia Synthesis Converter Basket and New PRDS System in Tr-V Ammonia Plant resulting in reduced energy consumption

- Finalized the installation of Urea Casale's high efficiency tray for Urea reactor resulting in steam saving at Trombay V Urea Plant
- Suggested transfer of cheap RCF Trombay ammonia to RCF Thal for production of industrial chemicals resulting in increased profit to the tune of 20 Crores from these chemicals

**The above modifications along with other improvement scheme initiated by Shri Khare resulted in combined saving of around ₹100 Crores to RCF**

He was involved in successful UNFCCC registration of N<sub>2</sub>O emission reduction CDM project for Medium pressure and High pressure Nitric acid plants.

He conceptualizes and made feasibility reports for Gas Turbine Project at Trombay and Thal, which are in various stages of implementation. He also conceptualized and made feasibility report for 25 MW wind power project. He prepared feasibility report of Syria phosphate mining projects and Tunisia phosphate mining projects involving investment of 4 billion US\$ each. These feasibility reports were submitted to Syria and Tunisian authorities. He made feasibility report for Solar PV power generation.

He was involved in the execution of Thal Urea and Ammonia revamp projects. Under the Project, Urea 31 unit capacity was enhanced from 1725 to 2300 MTPD, Ammonia plant capacity was enhanced from 3375 to 3800 MTPD coupled with energy consumption reduction from 8.9 to 8.08 MKcal/MT of Ammonia production. Project was completed within allotted budget of ₹ 488 Crores.

He was instrumental in finalization of advance control schemes for both Ammonia plants at Thal.

In commercial department, he implemented e-tendering system for all tender above ₹ one lac.

He introduced DGS&D procurement in RCF and took step to reduce material procurement cycle.

He introduced monthly rolling procurement plan for a period of next twelve months for raw material. This rolling plan resulted in reduced handling of raw material during monsoon and reduced bunching of vessel, leading to reduction in vessel demurrage and plot demurrage.

## **Shri Khare also introduced a number of Innovative ideas in RCF and Indian Chemical Industry.**

- Using Process Simulation for trouble shooting, investigation in the year 1989
- Installing Advance Control for chemical plants in the year 1990. Installation of the system resulted in saving of ₹ 120 Lakh per year
- Using data reconciliation for Ammonia plant in the year 1990
- Introduction of product mix for optimal profit for RCF Trombay through financial modelling of entire Fertilizer Complex in the year 1999. This has resulted in better planning and higher profit for RCF Trombay plants
- Installing Vapour Absorption Chiller for process cooling in the year 1995/2000. By installing chillers at suction of synthesis gas compressor Ammonia and Methanol Plant production of Ammonia and Methanol plant was increased by 24 MT Per day of Ammonia and 15 MT per day of Methanol respectively. This has led to saving of ₹ 385 Lakhs per year in ammonia plant and ₹ 225 Lakhs per year in Methanol plant
- Using Hydro jet cleaning of exchanger to increase plant efficiency in the year 2002. By employing this cleaning technique for Ammonium Nitrate evaporator, the Ammonium Nitrate production was increased to 400 MT from 150 MT per day resulting in increased profit of ₹ 30 Crores per year
- Using Variable Frequency Drive for Process Control in Chemical plant in the year 2004. This improvement scheme reduced the pump maintenance to nearly zero
- Using process simulation for process condition monitoring in the year 2012