R&D Activities At VSP Gain Momentum

Rashtriya Ispat Nigam Limited – Visakhapatnam Steel Plant (RINL-VSP) popularly known as ‘Vizag Steel’ the ‘Pride of Steel’, a leading Central PSU under the Ministry of Steel is the first shore based integrated Steel Plant in the country. Vizag Steel known for its ‘Quality’ and ‘Customer Service’ is a market leader in longs with a share of about 10%. It has been supplying various grades of steel for construction of projects of National importance and has exported finished products to several countries.

RINL-VSP is a ‘Navaratna’ Company with a yearly turnover of over ` 10,000 crores, having the distinction of ‘Several First’ in the country to its credit with state of art technology, viz; Coke Dry Quenching, Large size Blast Furnaces, 100% Continuous Casting, Rolling Mills with ‘Tempcore’ Processes, Rolling Mills with ‘Stelmore’ Processes, Triple Standards Certificates, viz. ISO 9001, ISO 14001 and OHSAS 18001 for Quality, Environment, Occupational Health and Safety, Capability Maturity Model Integrated (CMMI) level-3 certificate from Software Engineering Institute, USA and First PSE and First in steel sector to get BS-EN-16001 (Energy Management System) certification in India.

The Plant with a capacity of 3.0 Mtpa of liquid steel has been operating much above 100% rated capacity (120% and higher) over the last decade. Though the plant was basically designed to produce mild steel grades, innovative in-house improvements have helped to continuously develop ‘value added’ products to serve discerning customers. The quantum of Value added production has been on the rise continuously over the years and is now touching 80%. RINL-VSP has already commenced the commissioning activities for its brown field expansion costing about 12,500 crores to almost double its capacity to 6.3 Mtpa of liquid steel and would be completed in phases by 2011-12. Modernization and Up-gradation of existing assets with an investment about `7000 Crores has been taken up. Some projects have already been completed and some are under implementation. This would not only make the existing assets equipped with cutting edge technology also expand capacity to 7.3 MT by 2013-14. Also consultant has been appointed for preparation of feasibility report for adding yet another 4.0 MT which would increase the capacity to 11-12 MT by 2015-16, where in diversification of products to flat and high end products such as seamless pipes, silicon steel are contemplated.
A dedicated Research & Development department was started in the year 2005 to take up a few projects with the help of external partners like reputed educational institutions and research organisations to work on problems of interest to the organization. Also efforts were initiated to develop new products based on market requirements with Partnerships with Indian Institute of Technology, Kharagpur, Indian Institute of Technology, Chennai, Indian Institute of Technology, Kanpur, Indian Institute of Science, Bangalore, National Institute of Technology, Tiruchirapalli, Jadavpur University, Kolkata, Andhra University, Visakhapatnam, Institute of Minerals and Metals Technology, Bhubaneswar, Central Glass and Ceramics Research Institute, Kolkata, Central Electro-Chemical Corrosion Institute, Karaikudi, Research and Development Centre for Iron and Steel Technology – SAIL, Ranchi, Research and Development Centre – National Mineral and Development Corporation, Hyderabad, National Institute of Ocean Technology, Chennai, Indian Institute of Chemical Technology, Hyderabad and National Geophysical Research Institute, Hyderabad.

A mini pilot oven was designed, built and commissioned in-house at Coke Ovens complex for testing of coal blends incorporating new coals. Also a pot sintering experimental set up was installed at Iron laboratory for testing sinter using micro fines in base mix blend. The number of projects being handled rose to around eleven projects in progress in 2010-11 and another fifteen are in various stages of discussion. In addition to the above five internal projects were also taken up by senior R&D personnel. The total expenditure on Research and Development till date is ‘84.42 crores.

The philosophy on which, the Research and Development activities of RINL are built upon, is to ‘Carry out applied research in the fields of Iron and Steel technology and allied areas’; ‘Develop indigenous solutions to address the problems being faced by the steel industry including energy and environmental concerns’; ‘Develop relevant technologies and create manufacturing capability to adapt to indigenously available raw materials and reduce reliance on imports’ and ‘Pursue innovative and path breaking technologies for providing a vibrant, viable and sustainable future’.

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To
The Bureau Chief

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Visakhapatnam.