



Steel Industry & Environment – Tata Steel Approach



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management. He has handled various Energy, Utilities and Environment Projects and is currently incharge of Environment Management at Jamshedpur.

He has been associated with World Steel Association and has completed the project titled Maintenance in new Millennium. He is a nominee Director of Tata Steel Ltd in the Boards of Industrial Energy Ltd & Bhubaneswar Power Private Ltd. He is an FIE and also a member of the Technical Committee of AIST on Energy and Utilities.

Globally, initiatives like 'Corporate Sustainability' and 'Social Responsibility', have gathered momentum and changing the way businesses are conducted. Tata Steel stands proud as a pioneer of social and environmental initiatives, not just in India but around the world. Even before it was bound by regulations, Tata Steel has adopted environment-friendly practices to reduce adverse impact of its growing economic activities.

Environment Management at Jamshedpur Steel Works

Tata Steel set up its steel plant in the city of Jamshedpur over 100 years ago. The company, a pioneer in mining and steel manufacturing in India, is also a champion in conducting sustainable business. Its focus include improvements in controlling the ambient air quality, waste water utilisation, enhanced treatment of effluent and re-use of components, solid waste utilisation. Tata Steel is committed to continue investing in advanced technologies and a disciplined production process that curbs emissions and become energy efficient.

It takes years of dedication and



perseverance to manufacture high quality steel and add eco-efficient products to its portfolio while using fewer natural resources, less energy and less water per tonne of steel produced. All products as well as the production units are certified as per the highest national as well as international standards and carry the same trust that the Tata name commands.

Curbing GHG Emissions

Tata Steel has been focussing on both energy and resource conservation projects. Over the years, Tata Steel has adopted clean technology to reduce and monitor pollution level. The one accomplished in Jamshedpur Steel Works include the adoption of technologies like High Top Pressure and Top Pressure Recovery Turbine (TRT) at Blast Furnaces to reduce emission levels. By using TRTs, the plant generates electrical energy with the pressure recovered from the top gas, thereby replacing the electrical energy from a coal based thermal power plant. This initiative alone has led to significantly reducing the company’s carbon footprint and energy savings to the tune of Rs 1829 TJ/yr in 2013-14.



In fact, Tata Steel registered the lowest specific CO2 emission of 2.41 tCO2/tcs at Jamshedpur Steel Works in FY’15. They have also recorded a reduction in effluent discharge of 0.15 MGD from FY’14 and consequently water pollutant discharge.

Apart from curbing Green House Gas emissions, the Group has been particular about controlling the ambient air quality. Kalimati Eco Park is a classic example of land

Tata Steel has achieved the lowest specific CO2 in the Jamshedpur plant in FY'15

Over 50,000 square meters under ground cover plantation

reclamation within Jamshedpur Works – a total of four zones in the park separated by three water bodies dating back to inception of the first blast furnace at Jamshedpur more than a hundred years ago. Apart from establishment of parks, all open areas inside the plant be either concreted or paved with inter-locking paver’s block. This is being done through ground cover plantation. A total of 50,650 sq m area has been brought under this project, presently.

Resource Conservation

To save on precious coal reserve which goes less in volume, during coke making, additional provision (in addition to existing one) has been made in HBF for putting pulverized coal. This preserves the natural resources.

With changing in the blowing parameters of blast furnaces and subsequent improvement in raw material quality, coke rate has been reduced and coal injection rate has been increased to become Indian benchmark. This has significantly contributed in reducing the cost of hot metal.

Use of Coal Tar in Pellet Plant is yet another example of resource conservation through utilization of by-product generated in plant process.

Solid Waste Management

Solid Waste Management is another area where TATA Steel has made significant progress. The company is continuing to pursue collaborative initiatives with cement companies for usage of LD Slag (a by-product in steel making) in cement making and manufacturing of Paver Blocks. Experts have ratified time and again that usage of products

like LD slag is environmentally friendly.

Awards and Accolades

The company’s vision has seen a multiplier effect around its steel plant in Jamshedpur and has consistently been lauded by industry and experts in the field. This is evident with the numerous felicitations which the company has received across various fora. To name a few, Tata Steel has been recognised as Climate Change Disclosure Leader in CDP 2014 and received 97% score, which is highest amongst Steel sector globally and materials sector in India. It has also been conferred the highest award “Business of the Year” in CII-ITC Sustainability Awards 2014, IEI Industry Excellence Award at the 29th Indian Engineering Congress and Gold Awards to Jamshedpur Steel Works in Greentech Awards this year. These are not just awards, but a ratification of the company’s exemplary vision in environment management, reduction in green-house gas emission, solid waste management etc.

The Way Forward

Everyone acknowledges that India is a developing nation with relatively low geographical area and finite natural resources. As a result there are sustainability challenges associated with the current growth. However, this can be viewed as an opportunity to innovate and make businesses truly sustainable. Apart from focussing on developing stainless steel, which has inherent environmental advantages by being durable, adaptable, reusable and recyclable, the company’s vision for its future is the shift to green business. Tata Steel believes that adoption of clean and green way of life is where future lies. This paradigm shift to green business offers an opportunity for the company to review current practices and realign the way it functions. Looking for alternate options in energy generation, recyclable products, and products with minimum waste are need of the hour.