

PRODUCT STEWARDSHIP & CUSTOMER SATISFACTION

Green Alternatives

BSP has been making efforts to bring down the ecological foot print of its operations thorough adoption of efficient technologies in progressive manner to bring down its resource consumption mainly raw material, energy & water

Product Responsibility

The main products of BSP are various kinds of steel products and process by-products. The steel products are generally environment friendly and do not pose any health or safety hazard during their use. Therefore, Specific procedures for preserving customer health & safety during the use of its products are not required. BSP addresses the environmental issues of the products by carrying out Life Cycle Assessment Studies to reduce the environmental burdens during mining to production stages.

The process by-products like slags and some hazardous wastes material is also generated. Use of safety appliances like Safety helmet, Safety Boots, Chemical Splash Goggles, Nose mask, Hand Gloves is mandatory. Hazardous Wastes handling is done as per Hazardous waste management & handling amended rules 2003. BSP has received the Authorization for the same valid till Feb 2010. There is no incidence of non-compliance with respect to regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle.

Innovation and New Product Development

BSP strives to adhere to the policy of developing one new product every month. This approach has facilitated in meeting the newer and anticipated requirements of customers. Since last three years BSP has continuously developed 12 new products every year.

BSP has been continuously enhancing its product portfolio, grades and profiles. BSP's efforts towards introducing and improving high strength steels has resulted development of Thermo Mechanical Treated bars in anticipation of the emerging trends in housing and construction segment. Development of Earthquake-resistant TMT re-bar with higher strength (YS: 500MPa minimum) is a case of pro-active product development, where SAIL-BSP anticipated the need of establishing a niche product to cater to society needs in order to reduce the loss of materials and more importantly, human life, in case of high seismic activities. BSP, the sole supplier of rails to Indian Railways is currently supplying 260 meters long Rails, the longest rails in the world dispatched from works, to meet the objective of improving passenger comfort and reducing track maintenance activities. The newly developed UTS-100 high strength Vanadium

New Product developed in 2011-12

1. End Forged Thick Web Asymmetric Rail for Indian Railways.
2. Atmospheric corrosion resistance steel plates in JIS3114 SMA 490BWN.
3. ASTM A 537 class 1 plates with impact test in transverse direction.
4. Dual grade Boiler quality plates in ASTM A 516 grade 60 with Grade 70.
5. SAIL-TMT Fe 550 EQR/IS 1786 Fe 550 D-High strength earth quake resistance quality bars.
6. BSEN 10025-2 S 275J2+N-Moderate strength with low temperature impact toughness.
7. Channel 400X100 in the grade BS EN 10025-2 S 235 JR + AR for Overseas Project.
8. DIN EN 10028-3: P355 NL1 – Weldable fine grain pressure vessel plates.
9. BS EN 10028-2 P355 GH with PED certification.
10. Plates conforming to Ultrasonic testing as per EN 10160.
11. BSEN 10025 S 235 JRAR GRADE Beam 600.
12. Plates conforming to Ultrasonic testing as per the ASTM A 578 Level C

micro-alloyed Rails will meet the requirement of high density, heavy haulage routes including proposed freight corridor. Similarly as regards another key product of Plates, new plate products have been regularly developed which include Z quality (through thickness ductility) and NACE quality (HIC resistant) plates and soft iron plates for nuclear application

Involvement of stakeholders in product development : New and customized products are developed through regular interactions with customers and cross functional teams consisting of professionals from Plant, RDCIS and PMG of Central Marketing. Based on requirement a competent technical team also visits the customer premises to discuss and understand their needs. Customers are also invited at our

premises during the development of their product. Development of Long Rails for Railways, DMR plates for Navy, Rolling of Maraging Steel Plates for Space Shuttle, etc. are few examples of new product development in association with our customers. The extensive relationship network of sister units, expert bodies, MOU/partner suppliers is exploited in case of specific needs regarding product development.

Steel Products-green Products

The steel products are environment friendly, 100% recyclable and have absolutely no harmful effects during their entire life cycle.

More steel is recycled worldwide annually than all other materials put together, As per the WSA report world steel industries uses about 40% scrap in production of crude steel. BSP has carried out LCA studies in association with MoEF & all 26 recommendations arising out of the study have been implemented to reduce the environmental footprint & also increase energy efficiency of the processes. The aspect of mining impacts are also considered & mitigation plans in the form of afforestation on mine burden/dumps, pelletization plant for better utilization of ore fines for resource conservation are also being considered. In view of the ongoing modernization program BSP has again taking-up these studies with focus on CO2 & water reduction.

Over the years BSP has produced several high strength steels which have positively contributed towards green house gas reduction. The innovation involves development of next generation environment friendly high functionality steel products which are having lighter weight, high strength, higher temperature strength and longer service life. This will result in manufacturing of less quantity of steel (resource savings), reduction of energy consumption during its use, reduction of green house gas emission during its transportation and its use, can resist higher temperature and provide longer life with reduced replacements.

The details of Eco-friendly High Functionality Steel Products are given below.

New eco-products Developed	Type	New eco-products Developed	Type
Plates for ATM safes in SAIL-HITEN 590 AR quality	High Tensile	Fe 500 High Strength Corrosion resistant & earthquake resistant TMT wire rod in 12 mm section	Corrosion resistant
TMT Fe 415 Rebar in 6, 20, 25 mm section	High Tensile	Corrosion resistant Cr Rails	High Tensile
TMT Fe 415 Rebar with Nb micro alloying	High Tensile	SAIL-FRS fire resistant quality steel in 10, 12, 20 mm thick plates	Fire resistant
Naval grade plates in DMR 249 A quality	High Tensile	Long Rail panels in length up to 260 M for Indian Railways	
Semi-rolled plates (100 mm) for Bulb bar in DMR 249 A	High Tensile	High Corrosion Resistant and High Strength plates in 10khSND grade.	Corrosion resistant
API X 52, 60 grade plates for pipes	High Tensile	SAILMA 300 HI normalised plates in 80 mm thickness.	High Tensile
TMT bars for rock bolt	High Tensile	Naval Grade plates in DMR 249-B with high Nickel content	High Tensile
TMT Fe 415 Rebar in 45 mm section	High Tensile	Fire resistant plates with chromium and molybdenum	Fire resistant
API X-70 line pipe sheets	High Tensile	SAILMA 550 HI plates	High Tensile

The manufacturing and usage of the eco-friendly high functionality steel material has resulted in savings of about 1.5 million tones/yr of green house gas emissions (carbon dioxide) during the production and its use. If the product has service life of 30 years, BSP is contributing to reduction of 45 million tones of carbon dioxide.

Product and Service Labeling

The product information regarding BSP products is widely publicized through the SAIL website www.sail.co.in which contains details with regard to Grade, Sizes and Applications. The published product catalogues help in informing the customers regarding the products. The stamping and embossing on prime steel products ensures proper product identification. All the norms for physical dimensions, chemical composition and technical delivery conditions for the associated specification are strictly adhered to during production and dispatch of various products manufactured by BSP. Tests certificates are issued along with the deliveries to the customers. There is no incidence of non-compliance with

respect to regulations and voluntary codes concerning product and service information and labeling..

Product Information & Labelling There are no regulations on product information and labeling other than the standards on physical dimensions and chemical composition on various products manufactured by BSP. Test certificates are issued at the time of delivery to the customers.

Incidents of Non-Compliance

No instance of non-compliance with regulations concerning product information and labelling, including any penalties or fines assessed for these breaches occurred in the reporting period.

Marketing Communications

BSP ensures that its marketing communication practices conform to generally accepted standards. One of the credo of SAIL clearly states that “We uphold highest ethical standards in conduct of our business”.

SAIL as a whole has a comprehensive system of advertising addressed by corporate communication department for its corporate image and product promotion. The advertisements related to BSP for regional and global levels are managed by SAIL at corporate level. Advertisement campaigns viz. “Steel Green”, “Steel in Need SAIL in Deed”, “This butterfly comes to our plant in search of flowers; Not all our customers want steel” are conducted on regular basis. In addition to this, BSP in line with communication policy of SAIL also advertises its image in the local region, to permeate the grass root level. There is no incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship etc. The privacy related to consumer information, such as, the specifications of special products developed for specific consumers are protected through confidentiality agreements. No complaints regarding breaches of customer privacy and losses of customer data received. No fines was imposed for No incidences of noncompliance with respect to laws and regulations concerning the provision and use of products and services and no fines was paid during the year.

Customer Privacy

Privacy related to consumer information, are protected. There was no substantiated complaint regarding breach of consumer privacy against BSP during the reporting period.

Compliance

No monetary fines were imposed on BSP during the reporting period for noncompliance with laws and regulations concerning the use of products and services.

Customer Satisfaction

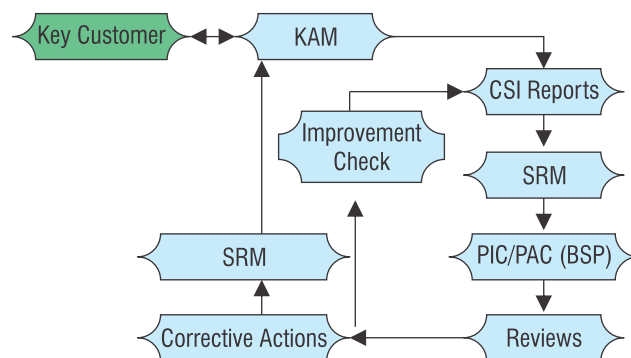
Bhilai has been leveraging the key business drivers to provide superior value to customer on sustainable basis. In reaching out to customer, Central Marketing Organisation (CMO) is our partner for marketing of our products. BSP has devised specific strategies for enhancing customer satisfaction. The

various strategies adopted by BSP in enhancing customer satisfaction are enlisted below.

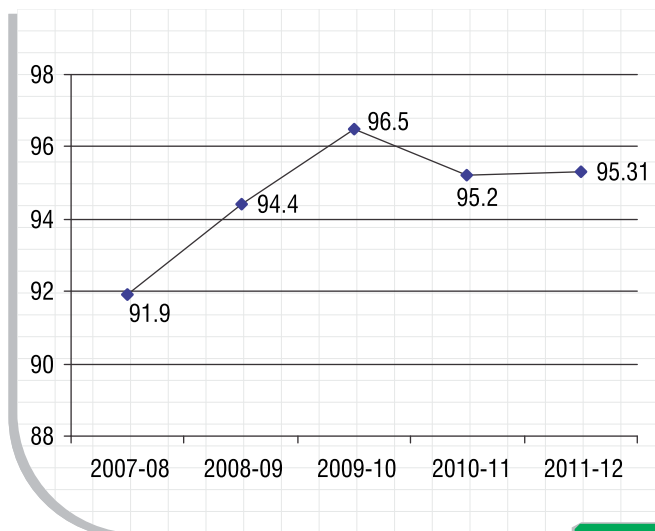
- Market segmentation
- New product development
- Customisation.
- Maximising Value added products.
- Key Account Management
- Internal customer satisfaction
- Quality Improvement
- Customer service through IT
- Partnership with customers

BSP has a structured process of capturing customer perception on its product quality, delivery as well as service. Key Account Management process is a major initiative taken in this regard. The system provides single window support to its customers through Key Account Manager at CMO and a strong responsive system at plant to take care of customer. The process starts from capturing customer feedback, analyzing & reviewing the same and taking improvement measures. The CSI is also reviewed at the apex level in the Management Review of the ISO 9001 Quality Management System of BSP. While the Key Account Manager takes care of all the interface activities with customer, various aspects of order management including heat planning, production as per customer requirement, delivery of material are taken care by the Plant Information Coordinator and Plant Account Coordinator. The customers decide the weightage to various key parameters based on their perception of criticality of the parameters of the product to their operation

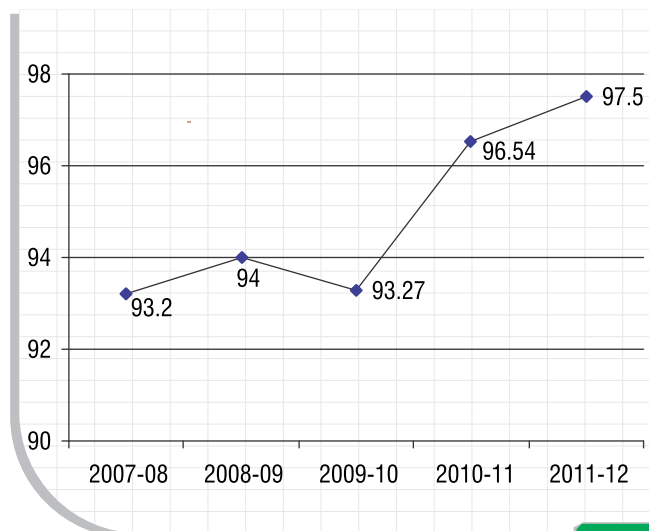
There are overall positive trends in Customer Satisfaction Index (CSI) for long and flat products



LONG PRODUCTS



FLAT PRODUCTS



Customer Health & Safety

Steel products are environment friendly and do not pose any health or safety hazard as a result of their use. There was no instance of non-compliance with regulations related to health and safety of its products nor any fines/penalties have been imposed. There were no complaints in this area during the reporting period.

Life Cycle Assessment BSP participated in a Life Cycle Assessment (LCA) study for steel sector, which was sponsored by the Ministry of Environment & Forests, Government of India in 2002-2003. Life Cycle Assessment (LCA) provides a holistic approach to evaluate the performance by considering the potential impacts of all stages of manufacture, product use and end-of-life stages; commonly known as “cradle-to-grave” approach. A life cycle inventory

was carried out to quantify resources used, energy and environmental emissions associated with the various processes of steel manufacturing up to the steel factory gate. Steel is a commodity product and it is almost impossible to track the end use of the steel. Steel is also a 100% recyclable material. Therefore, the study was limited to the factory gate.

Based on the various inputs of the study and its analysis with the help of National Metallurgical Laboratory, Jamshedpur, Tata Steel has benchmarked several issues related to raw material consumption, energy consumption, solid waste utilisation and green house gas emissions. The improvements in the performance of various parameters with the implementation of the recommendations from the above study are seen through various indicators in this report.

