Curriculum Vitae (CV) for Satyendra Kumar Sarna

Photograph

1. Name: Satyendra Kumar Sarna
2. Date of Birth: 03 Feb 1945
3. Nationality: Indian
4. Address: BDG 09 103, Dover

   The Grand Forte

   Sector – Sigma 4

   Greater Noida 201308

   India
5. Mobile: +91 99999 85843
6. E Mail: satyendrasarna@gmail.com
7. Education: BE (Met), IIT Roorkee (Formerly University of Roorkee) in the year 1967
8. Proficiency in language – See table below

Language	Speaking	Reading	Writing
English	Good	Good	Good
Hindi	Good	Good	Good
Russian	Poor	Fair	Poor

9. Membership of Professional Associations: See Annexure 1
10. Training: See Annexure 2
11. Countries of Work Experience: See Annexure 3
12. Employment Record: See Annexure 4
13. Major Work Undertaken: See Annexure 5

Satyendra Kumar Sarna
Date: 16- Sep-2014
Place: Greater Noida

Annexure – 1

Membership of Professional Associations

- Life fellow of Indian Institute of Metals (FM-L-2117)
- Life fellow of Institution of Engineers (India) (F-8692)
- I was Visakhapatnam Steel Plants' principal representative on Standards Committee on Coke Ovens (IPSS-2-4) of Inter-Plant Steel Standards (IPSS) from August, 1981 to December, 1986
- I was Visakhapatnam Steel Plant's alternative representative on Approval Committee on Design parameter (IPSS – 2) of Inter-Plant Steel Standards from January, 1987 till May, 1992
- I was Visakhapatnam Steel Plant's principal representative on Standards Committee on Rolling Mills (IPSS-2-6) of Inter-Plant Steel Standards from January, 1987 till May, 1992
- I was Visakhapatnam Steel Plant's principal representative on Structural Section – Sectional Committee SMDC-6 of Bureau of Indian Standards till May, 1992. As a member of special panel under this committee, I have drafted Standard for Hot Rolled Parallel Flanged Steel Section. These standards were later issued as IS: 12778 and IS: 12779.
- I was Visakhapatnam Steel Plant's principal representative on Sectional Committee MTD – 4 of Bureau of Indian Standards from May, 1992. Also Convener for steel bars and wire sub-committee MTD – 4.4.
- National Council Member of Indian Institute of Metals for several years.
- Vice-Chairman of Visakhapatnam Chapter of Indian Institute of Metals and Chairman of Visakhapatnam Chapter of Indian Institute of Metals during various periods.
- I was Member of Board of Studies of Metallurgical Engineering Department of Andhra University. Also I was on the panel of paper setters / examiners for Metallurgical Engineering Department of Andhra University during the period when I was at VSP.
- Represented VSP in the Ferrous Division of Indian Institute of Metals.
- Represented VSP on the Science Advisory Committee of Ministry of Steel.
- Represented VSP for the Life Cycle Studies to be carried out in Steel Industry by Ministry of Environment.
- Coordinated activities with World Steel Association (formerly International Iron & Steel Institute) on behalf of RINL for 3 years after RINL became member of WSA in 1995.
- Member of Editorial board of Metal News published by Indian Institute of Metals for two years.
- I was a member of Jury since 2002 to 2004 for the selection of the candidates for the metallurgist of the year award and young metallurgist of the year award, given by ministry of steel on National Metallurgist day every year.
- Member of Institute Managing Committee in ITI, Cuttack during my tenure in NINL.

- Director of Biju Patnaik National Steel Institute from February 2005 till August 2006.

Annexure -2

Training

- As a student of IIT, Roorkee I have taken training during summer vacations in 1965 and 1966 at Bhilai Steel Plant (8 weeks) and Rourkela Steel Plant (7 weeks) respectively. During this training period, Hindustan Steel Limited paid me a stipend of Rs. 50/- per week.
- After joining Hindustan Steel Limited / Bokaro Steel Limited (now SAIL) in 1967, I got general training in Bhilai Steel Plant and specialized training in cold rolling mills at Rourkela Steel Plant.
- Taken advanced specialized training in cold rolling mills of Cherepovets Steel Plant in Russia (formerly USSR) during 1971-72.
- I have taken training in 'Managerial Effectiveness' from September 14th to 26th, 1992 at Tata Management Training Centre, Pune.
- I have taken 5-days training for 'Lead Assessor' during May, 1994 conducted by BSI International Training, UK and passed the certification examination for lead assessor.
- Visited Brussels during June, 1996 to attend workshop on Life Cycle Assessment (LCA) conducted by World Steel Association (formerly IISI) in association with ECOBILAN of France.
- I have taken training of facilitators for TQA (Total Quality Advantage) during 14 to 18 April, 1997.
- I have attended a number of in-house management training programs conducted by external faculties at RINL.

Annexure 3

Countries of Work Experience

Besides training in Cherepovets Steel Plant and posting in Moscow, the work experience in other countries is as follows.

- Worked at Indian Embassy, Moscow for three years (1977 – 1980) as Liaison officer for Bokaro Steel plant. During this period, I was having a rank of Second Secretary in Indian Embassy with full Diplomatic Status. During this period I Have worked with organizations Gipromez, Tiajpromexport, Stankoimport, and Machinoexport etc.
- During Feb 1982, participated in the first tripartite engineering meeting with Paul Wurth, Luxembourg, Gipromez, and Visakhapatnam Steel Project at Gipromez Moscow.
- Visited in June-July, 1982 as a Member of VSP-Dasturco team to UK, West Germany, East Germany and Belgium to assess the capabilities of bidders for Wire Rod Mill.
- Visited in December, 1982 as a Member of VSP-Dasturco team to West Germany, Czechoslovakia, Italy, Spain, France to assess the capabilities of bidders for Medium Merchant and Structural Mill.
- Visited in Feb 1983 as a member of VSP-Dasturco team to Japan, to assess the capabilities of bidders for Medium Merchant and Structural Mill and Universal Beam Mill.
- Visited during Nov 1985 SMS-Schloemann Office in Dusseldorf and Hilchenbach, West Germany, to attend the engineering meeting for Light and Medium Merchant Mill.

- Visited ZDAS Office in Zdar, Czechoslovakia, during Aug 1987, Nov 1987, Feb 1989 to attend first, third and eight engineering meetings for Medium Merchant and Structural Mill.
- Visited Singapore and South Korea in May, 1995 to interact with customers of RINL and to study the major features of Pohang and Kwangyang steel plants of POSCO.
- Visited Brussels during June, 1996 to attend workshop on Life Cycle Assessment conducted by World Steel Association (formerly IISI) in association with ECOBILAN of France.
- Visited Saudi Arabia and Middle-east countries during August 2000 to interact with various customers of RINL.
- Visited Australia in May 2005 to interact with coal suppliers, visited coal mines and ports.
- Visited Lesotho (South Africa) in July 2009 for preliminary discussions on a pipeline project.
- Visited Brazil in August-September 2009 for evaluation of two iron ore mines on sale.
- Visited Saudi Arabia in December 2012 as a consultant to OSPDPL, Kolkata for an assignment to suggest operation improvements through benchmarking to Al-Tuwairqi group of companies at Dammam and Jeddah.

Annexure 4

Employment Record

From Year to Year	Employers	Positions held
Nov 2012 – Till date	Maintaining personal website http://ispatguru.com/	Free lance consultant
Dec 2008 - Oct 2012	Maharashtra Seamless Limited	Executive Director (Steel Projects)
Oct 2007- Nov 2008	Sona Alloys Pvt. Ltd.	Director Technical
Aug 2006 – Oct 2007	MN Dastur Pvt. Ltd	Advisor (with the status of a director)
03.12.04 – Aug 2006	Neelachal Ispat Nigam Limited	Managing Director, Sch. B
01.08.03 – 02.12.04	Neelachal Ispat Nigam Limited	Joint Managing Director /Jt. Managing Director I/C, Sch. B
01.09.2000 – 31.07.03	Visakhapatnam Steel Plant, RINL	Exec. Dir. (Works), E-9 grade

30.06.96 – 31.08.2000	Visakhapatnam Steel Plant, RINL	Chief (Tech. And R&D) / Addl GM (Tech and R&D) / GM (Tech & R&D)/ GM (Iron) / GM (QA & TD) / GM (Tech & Research), E-8 grade
30.06.93 – 29.06.96	Visakhapatnam Steel Plant, RINL	Dy. General Manager (R&C and R&D) / Dy. General Manager (QA&TD), E-7 grade
22.11.90 – 29.06.93	Visakhapatnam Steel Plant, RINL	Asst. Gen. Mgr. (Technology)/Asst. Gen. Mgr. (R&C and R&D), E-6 grade
11.11.87 – 29.06.93	Visakhapatnam Steel Plant, RINL	Addl. Chief Engineer (Technology)/Asst. Gen. Mgr. (Technology)/Asst. Gen. Mgr. (R&C and R&D), E-6a and E-6b grade
30.07.83 – 10.11.87	Visakhapatnam Steel Plant, RINL	Dy. Chief Engineer (Technology), E-5 grade
Aug 80 - 29.07.83	Visakhapatnam Steel Plant, RINL	Asst. Supdt. (Technology), E-4 grade
27.03.80 – 29.07.83	Bokaro Steel Limited (now part of SAIL)	Sr. TA to MD/Asst. Supdt. (CRM), E4 grade
30.08.75 – 26.03.80	Bokaro Steel Limited (now part of SAIL)	Sr. TA to GS/ Liaison Officer (Tech.) Moscow/Sr. TA to MD, E3 grade
26.08.72 – 29.08.75	Bokaro Steel Limited (now part of SAIL)	Foreman / TA to GM(W)/ TA to GS, E-2 grade
21.09.67 – 27.08.72	Bhilai Steel Plant/Rourkela Steel Plant/Bokaro Steel Limited (now part of SAIL)	Graduate Engineer / Junior Engineer, E-1 grade

Annexure - 5

Major Work Undertaken

- During the period of work at Bokaro Steel Limited I have worked in design department, cold rolling mills, and in General Manager (Works) office as Senior Technical Assistant. When I was working as Sr. Technical Assistant to General Manager (Works) various units of the plant achieved production level above their rated output. Part of the job was analysis and monitoring of the operational data and fixing and monitoring of the norms for the production units. The data analysis done by me has helped Bokaro Plant to solve many technological issues. Major jobs handled by me during the period are

1. Solving of technological problems at the blast furnace
2. Providing solution to enhance the loading capacity at Hot Rolled Coil Finishing area for meeting the export commitments
3. Streamlining the preparation of cost control sheets and daily production reports

- I was posted for three years (1977 – 1980) as their Liaison officer in Indian Embassy, Moscow. During this posting, I was having a rank of Second Secretary in Indian Embassy with full Diplomatic Status. During this period part of the job was to freeze the technologies, productivity and consumption norms with GIPROMEZ (Design Institute in former USSR) for the Visakhapatnam Steel Plant (VSP) after proper techno- economic analysis. The inter-governmental agreement on VSP was signed during this period.
- While working in Design and Engineering Department of Visakhapatnam Steel plant, I selected the technologies, equipment and the suppliers of the plant after analyzing all the available technologies and various other data. The selection of latest technologies required a lot of convincing of many of the officers of SAIL and RINL who were several grades senior to me. The technologies selected by me during 1980s have made Visakhapatnam Steel Plant as most modern Plant even today. Based on the lead provided by RINL, SAIL and Tata steel implemented some of these technologies much later. Also the ordered plant and equipments produced above rated capacities year after year. Major jobs handled by me during this period are
    1. Finalization of Detailed Project Report (DPR) for the plant
    2. Negotiated and finalized the technical part of the contracts for 7 meter tall Coke Oven Batteries, Refractories for Coke Ovens, Benzol Plant, Ammonium Sulphate Plant, Bell-Less Top equipment and Carbon blocks for Blast Furnace, Crushing Plants for Limestone Quarry at Jaggayyapeta and Dolomite Quarry at Madharam, Lime Solution Preparation Plant for Pig Casting Machines, Torpedo Ladles, equipment supply contracts with Tiajpromexport (organization in former USSR) and HEC (Ranchi), Lime and Dolomite Calcining Plant, Tar Dolomite Brick Plant, Desulphurization Plant, Light and Medium Merchant Mill, Wire Rod Mill, Medium Merchant and Structural Mill and contracts for various individual equipments such as Hammer Crusher in Coke Ovens, Double Roll Crusher in Sinter Plant, Spectrometer and universal testing machines for laboratories etc. This is not a comprehensive list.
    3. Guided and participated in the engineering of Coke Ovens and By-product plant, Sintering Plant, Blast Furnaces and its auxiliaries, Steel Melting Shops (Converter Shop and Continuous Casting department) and its auxiliaries, Calcining Plant and Brick Plant, Light and Medium Merchant Mill, Wire Rod Mill and Medium Merchant and Structural Mill.
    4. I was a leading member of 4-member task force for implementation of Medium Merchant and Structural Mill.
- During May, 1992, transferred to Research and Control (R&C) Lab (renamed later as Quality Assurance and Technology Development Department) to head the department. Research and Development activity was added to R&C Lab. Later on various other activities such as implementation of ISO and OHSAS certifications as well as implementation of TQM were added to my responsibilities. Part of the job during this period was the analysis of quality data and fixing norms for the production units, development of new products (special steels), trouble shooting, failure investigations and process modification. During this period many in house technologies were developed by me and implemented. Major jobs handled during this period are
    1. Development of process charts for production of around 100 special steels

2. Development of streamlined cost sheet for the plant
3. Development and streamlining of various quality and production reports
4. Solving of a number of technological issues in steel melting shop
5. Solving of technological problem in Coke Oven Batteries
6. Increasing the converter lining life from less than 500 heats to around 3000 heats
7. Development of rolling of 28 mm, 32 mm, 36 mm and 40 mm rebars in Light and Medium Merchant Mill and rolling of 8mm, 10 mm and 12 mm rebars in Wire Rod Mill
8. Introduced use of nut coke in Blast Furnace Charge and use of LD slag in sinter making
9. Carried out LCA studies for the plant (From cradle to gate)
10. Implemented ISO 9001, ISO 14001, and OHSAS 18001 and TQM for whole of the plant. VSP became first plant in the country to achieve all the three certification.

- During GM (iron), solved the technological problem of blast furnace no. 1 and brought the production of blast furnaces above the capacity level.
- During my tenure as ED (Works), VSP's production and profitability of RINL increased manifolds. The capacity utilization level increased from 85% to 110% during the period. There was improvements in the yields and reduction in the specific consumption of the raw materials. A major reduction was achieved in water consumption, energy consumption, refractory consumption, and rate of accidents. Also there was a big jump in the waste utilization. Based on the performance of VSP during this period, VSP received a number of state and national level awards including Prime Minister's trophy for the best steel plant. Implementation of cost control activities during the period brought turnaround of VSP and VSP wiped off all its debt.
- During my tenure at Visakhapatnam Steel Plant, I have trained a large number of employees in technical processes and quality system. I was a regular visiting trainer both at training department of VSP and HRD centre of VSP.
- As MD, Neelachal Ispat Nigam Limited, I commissioned successfully Sinter Plant and Coke Oven & By-product Plant and guided the company towards cost control and systematic working. NINL during this period made several production and national records. The company was brought from net loss situation to net profit stage. Also guided NINL to come out of international arbitration on SMS package ordered on Mannesmann Demag. I initiated the implementation of phase 2 units.
- At Dasturco advised the engineers on technological aspects and developed a large E- library which was made available to all the engineers through Intra-net. Also actively got involved in the projects of Uttam Galva and Sona Alloys.
- At Sona alloys Pvt. Ltd., guided activities in the areas of environmental clearance, development of plant concepts, general lay out and area lay outs and ordering of major packages. Also guided activities with regards to Infrastructure and enabling activities at site, statutory clearances, site construction activities and development of Company Policies.
- At Maharashtra Seamless Limited I carried out activities in the areas of land selection for steel and power projects, freezing of plant concepts, valuation of iron ore mines in Brazil, carrying out Technical Due Diligence of several steel plants on sale (Example are OSIL, Nova Steel, Adhunik steel, MSP Steel, Zoom steel, Ind Synergy and several others), preparation of feasibility reports, and development of layouts as well as providing technical guidance in various areas. I also handled singlehandedly from 'concept to commissioning' implementation of 5 MW Solar PV Project at Pokaran Rajasthan allotted by NVVN (National Vidyut Vyapar Nigam) under JNNSM (Jawaharlal Nehru national Solar Mission) Phase -1 Batch 1. The plant was commissioned on 7th January 2012.

- Post November 2012, I, as free lance consultant, provided assistance to OSPDPL, Kolkata for their assignment with Al Tuwairqi group of companies in Saudi Arabia and Infraline energy New Delhi for their assignment for Bhilai Steel Plant. I was also empanelled by CRISIL on their panel of experts. As on 06- June -2019 I have written and uploaded 756 articles on my website ispatguru.com. This website was started by me in Feb 2013 for sharing my experience with the steel professionals of the world. Besides I am also regular contributor to magazine 'Steel 360' published from Raipur. I am also writing articles for JPC (Joint Plant Committee of Ministry of Steel) publications. I am also frequently invited to various seminars for guest presentations or heading sessions. I also gave technical advises to Infollion Research services Pvt. Ltd., Gurgaon and several individual persons from all over the world who sought these advices through E mails, and telephones. I have helped Dun & Bradstreet in the preparation of TEV reports for Shri Bankey Bihari Ispat limited, RSAL steel private limited, and Garg Inox limited. In March 2017, I gave a presentation to Ashapura Minechem Ltd at their Mumbai office, on the role of calcium aluminate fluxes in steelmaking. During 2017 cKinetics Consulting Services Pvt. Ltd, New Delhi has signed a consultancy agreement with me for one year. They were working on the issue of energy savings in the re-rolling mills in SME sector. During 2018 I assisted Vandana Global Limited Raipur in improving the operation of the plant with a special stress on the steel melting shop. During 2019, I assisted Barak Ispat Private Limited management regarding improvements in the plant operation.