#### **CURRICULUM VITAE**

#### **NEMAI KUMAR PAL**

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Languages Known: English, Bengali, Hindi

**Professional Summary**: Mechanical Engineer with 36 years of experience and specialisation in EPC jobs for various Steel Plant(s) and Project Consultancy services for Steel Plant & Hydroelectric Power

Plant.

## **Employment History:**

## MECON Limited (1980 – 2016)

# - 2.5 MTPA new stream expansion of SAIL-ISP, Burnpur (2012-2016)

- Co-ordination job for Project Consultancy services of SAIL-ISP, Burnpur
- Co-ordinated with IISCO Steel Plant in the implementation of Expansion plan for production capacity of 2.5 million tonnes by installation of Greenfield state-of-the-art integrated steel plant. Involved in the execution of the below modern facilities.

Coke Oven Battery -7 m tall x 74 ovens

Sinter Plant -2 x 204 m2 Blast Furnace -1 x 4060 m3 Basic Oxygen Furnace -3 x 150 tonne Billet Caster -2 x 6 strand Beam Blank Caster -1 x 4 strand Universal Section Mill -0.6 MT Bar Mill -0.75 MT Wire Rod Mill -0.5 MT

## Wire Rod Mill-2 (Vishakhapatnam) & Rolling Mills (SAIL-ISP, Burnpur) (2009-2012)

- Provided "Manufacturing supervision" services of mechanical equipment (for EPC job) for 0.6 MT/year Wire Rod Mill (WRM-2), Visakhapatnam (RINL). WRM-2 produces plain rod [(5.5mm 20mm) in 0.5 mm increment] & rebar [(6 mm 16 mm) in 2.0 mm increment] from billets of size [(150mm X 150mm X 12 metre) & (125mm X 125mm X 10 metre)].
- Provided Project Consultancy services for Rolling Mills of SAIL-ISP, Burnpur, which
  consists of 1 (one) bar mill and 1 (one) wire rod mill for production of 0.75 MT of high
  quality bars & 0.5 MT of wire rods per year; Another Universal Section Mill to produce 0.6
  MT of universal section products per year.
- Renovation, Modernization & Augmentation of Jaldhaka Hydel Power Station, Jaldhaka, WBSEDCL (2002-2009)
  - Provided Project Consultancy services for Renovation & Modernization (3x9 MW) & Augmentation (1x9 MW) of Jaldhaka Hydel Power Station
  - Prepared RLA Study Report for Unit-1 (40 MW) of Panchet Hydro Power House, DVC

# - KMCL Power plant, NINL, Dubri (1999-2002)

- Did Technical co-ordination for the following major equipment of the plant.
  - o 2x65t/h steam generators with auxiliaries
  - o 2x19.25 MW steam turbine generators with auxiliaries
  - o 1x25 MW gas turbine generator with auxiliaries
  - 1x45t/h Heat Recovery steam generator with auxiliaries
  - Pressure reducing & desuperheating units with associated system piping
  - o Plant electrics and C&I

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## - Modernization of Hot Strip Mill, Bokaro Steel Plant (1994-1999)

- Project Consultancy (including Manufacturing supervision) services for modernisation of Hot Strip Mill.
- Consulted and supervised for the following new facilities in the fully automatic Hot Strip Mill with an annual capacity of 3.363 million tonnes, the product thickness varying from 1.2 mm to 20 mm and width from 750 mm to 1850 mm.
  - Coiler addition and revamp of two existing ones
  - o High-pressure De-scaling System which helped eliminate rolled-in scale
  - Edgers in the roughing group which maintain width within close tolerance. The roughing group has a roughing train of a Vertical Scale Breaker, one 2-high Roughing Stand and four 4-high Universal Roughing Stands
  - The finishing group which consists of a Flying Shear, Finishing Scale Breaker and seven 4-high Finishing Stands
  - Hydraulic Automatic Gauge Control system in the finishing stands which ensures close thickness tolerance
  - The Work Roll Bending System which ensures improved strip crown and flatness.
  - The Laminar Cooling System, which is a unique feature to control coiling temperature over a wide range within close tolerance &
  - Quick work roll changing system for seven 4-high Finishing Stands.

## - Light & Medium Merchant Mill, Vishakhapatnam, RINL (1980-1994)

- Involved in Design, engineering, erection & commissioning (for EPC assignment) of mechanical equipment for 0.7MT /year Light & Medium Merchant Mill (LMMM), in collaboration with M/s SMS, Germany. LMMM consists of Billet mill and Bar mill.
- Blooms from Continuous Casting Division are rolled into billets (in Billet mill), some of which are sold and rest are further rolled in Bar Mill / Wire Rod Mill (WRM). The continuous two-line Bar Mill comprises of 8 Stand Double Strand roughing train, 2 nos. of 4 Stand Single Strand intermediate train & 2 nos. of 4 Stand Single Strand finishing train. Loopers are provided in between the finishing stands for tension free rolling in order to obtain good surface quality and tolerances. Housings are of closed top type. Roll necks are mounted in anti friction bearings. The finished products include wire rods & long products like reinforcement bars, rounds, squares, flats, angles, channels, billets etc.

## Training:

Certificate course in Project Management

## **Education:**

M.Tech, Mechanical (Machine Tool Design): IIT, Kharagpur (1980)

B.E, Mechanical: Bengal Engineering College, Shibpur (now IIEST), 1978