NPC Consultant Professional Profile

I. <u>Personal Information</u>

Name:SANKAR CHAKRAVORTY Date of Birth: 15/01/1968 Current Position& Domain: [Regional Director, Technology Management & Industrial Engineering] Office Location: [Regional Directorate Kolkata] Languages: [English, Hindi & Bengali] Contact: [s.chakraborty@npcindia.gov.in and Mobile No. 9831425045]



II. <u>Professional Summary</u>

I have 31 years of experience in Technology Management (Plant Engineering) and Process Management (Industrial Engineering). I started my career as a Plant Engineering Consultant in 1994, focusing on plant maintenance and industrial safety across various industries, including small manufacturers, power plants, petrochemical facilities, and oil refineries.

In Process Management, my expertise includes manpower assessment, production norms, job evaluation, and improvement initiatives like Total Quality Management (TQM), 5S, Kaizen, KANBAN, and Lean Manufacturing. I also have experience in conducting energy audits, including thermal insulation assessments, for RPMG in Kolkata.

III. Areas of Expertise

Primary Domains: [plant maintenance, industrial safety,Total Quality Management (TQM), 5S, Kaizen, KANBAN, and Lean Manufacturing]

Specialized Skills: [TPM, TQM, Condition Monitoring, RCM, Industrial Safety, 5S,Lean Manufacturing] **Industry Focus:** [TPM, TQM, Condition Monitoring, Integrated Management System, Industrial Safety, 5S, Lean Manufacturing]

Promoted as Director Grade I at RD Kolkata on	:	28/03/2023	<u>Profes</u>
Promoted as Director Grade II at RD Kolkata on	:	02/07/2019	sional
Promoted as Deputy Director at RD Gandhinagar on	:	12/04/2000	<u>Experi</u>
Joined as Assistant Director at RD Gandhinagar on	:	28/10/1994	ence

Key Responsibilities:

Carrying out assignments, conducting in-house and self-run training Programmes, workshops and seminars broadly in the following areas:

Plant Maintenance system design, condition Monitoring (Vibration analysis, Lub oil analysis, Infrared Thermography etc.), Total Productive Maintenance, Reliability Centred Maintenance, Maintenance Audit, Spare-parts Management, Safety Audit, Safety Inspection, safety Awareness Survey, Hazard Identification and Analysis, On-site & Off-site Emergency Plan, Implementation of OHSAS 18001, Quality Circle, 5'S, Kaizen, KANBAN, poka-yoke, Lean Manufacturing, Implementation of ISO 9001, Manpower Assessment, Jobevaluation and other Industrial Engineering activities, Energy Audit etc.

- Safety audit, OHS audit (as per IS: 14489:1998) and Risk analysis (HAZOP, HAZAN), Consequence analysis (dispersion modeling), Disaster Management Plan (DMP), Implementation of OSHAS 18000, Implementing HSE projects (Integrated Management System of OHSAS 18001 & ISO 14000), Safety awareness survey
- Implementation of Total Productive Maintenance (TPM), Condition Based Maintenance (CBM) and RCM (Reliability Centred Maintenance), Asset Management including inventory management
- Designing of Preventive, Predictive and Proactive Maintenance System and modeling approach (Manual as well as computerized); maintenance audit
- Equipment Management and condition monitoring (Vibration Analysis, thermography, shock pulse monitoring, oil analysis, current signature analysis, etc.) with latest instruments and software
- Instrument based "Electrical Safety Audit" at Banking establishment and other high rise corporate buildings, Hospitals, Hotels etc. based on "National Building Codes", Indian Electricity Rules and codes with the help of instruments such as Thermovision Camera, Power Analyser, Insulation Resistance Testing, Earth tester etc. and these give us great competitive advantage over the other service providers. State Bank of India, Eastern Zone has empanelled NPC Kolkata for conducting Electrical Safety Audit for their various office premises in West Bengal, Sikkim and Andaman & Nicobar Island.
- In the Process Management discipline, I developed expertise in Implementation of ISO 9001, Manpower Assessment, fixing production norms, Job-evaluation and other Industrial Engineering activities particularly improvement initiative techniques such as TQM, Quality Circle, 5'S, Kaizen, KANBAN, poka-yoke, Lean Manufacturing etc.
- I was involved as Team Leader, RD KOLKATA received one of the largest assignments of RD Kolkata namely
 - "Formation of Quality Circles for facilitating, nurturing & spreading of TQM activities at 120 nos. of Customer Care Centers (CCCs) of WBSEDCL where the RAPDRP activities have already undertaken.
 - Formation of Help Desk & submission of report for 500 nos. (Approx) of Customer Care Centers (CCCs) of WBSEDCL
 - Preparation of Help Desk Standard Operating Procedures
 - I am also the team leader for this assignment and successfully completed the same
- Besides Technology Management and Process management disciplines I have also developed expertise in energy audit and I have carried out almost all thermal insulation audit under detailed energy audit carried out from RPMG Kolkata.
- Undersigned as a core team member has executed following Two highly prestigious Assignments for Coal India Limited (CIL) of Rs. 30Lacs + GST towards "development of Fuel and wage escalation Formula" and one of it's subsidiary Eastern Coal Field Ltd of Rs. 60Lacs + GST towards " preparation of Schedule of Rates (SOR)"

- Undersigned as a core team member has executed highly prestigious Assignment on Implementation of Spare parts Management System Rs. 60 Lacs + GST for at South Eastern Coalfields Ltd. Chhattisgarh
- Undersigned as a core team member has executed highly prestigious Assignment for undertaking Organization study for SAIL at their Bhilai Steel Plant and Bokaro Steel. The undersigned has been assigned to function as a Project Team Leader for Bokaro Steel Plant (approx. 24,000) Manpower) and has been managing a team of 10 Consultants and 4 project Associates for accomplishing the onerous task. It is pertinent to note thatapprox..6-8% of manpower savings has been accrued to SAIL, Bokaro..

II. Major Project Experience in NPC [For each significant project, include:]

CONSULTANCY ASSSIGNMENTS

IN TECHNICAL SERVICE AREAS:

Industrial Safety

- Preparation of "On-site Emergency Plan" for Rabindranath Tagore International Institute of Cardiac Sciences (RTIICS) Kolkata
- Conducting Mandatory External Safety Audit as per IS 14489 and OHSAS–18001 guide lines at
 - o DPSCL Asansol(Repeat Assignments)
 - o Utkal Asbestos Ltd. Kharagpur (Repeat Assignments)
 - o CMRI Hospital Kolkata
 - NTPC Farakka (Repeat Assignments)
 - o Rabindranath Tagore International Institute of Cardiac Sciences (RTIICS) Kolkata
 - o B.M. Birla Heart Research Institute, Kolkata (3 times Repeat Assignments)
 - o DVC Andal
 - Durgapur Chemicals Ltd. Durgapur
 - o NTPC Khargoan
 - o IOCL, LBP, Paharpur Kolkata
 - All (9 Nos.) power plants of Damodar Valley Corporation (DVC)
 - o Conducting Fire and Safety Audit, on-site Emergency Plan and preparation of HSE Manual
 - Indian Govt. Mint Alipore Kolkata
 - o Texmaco Rail & Engineering Ltd. Agarpara, West Bengal
 - Electrical Safety Audit at
 - o SBI Local Head office Kolkata "SamriddhiBhavan" (3 times Repeat Assignments)
 - SBI GMU- Kolkata "JevanSudha Building"
 - o State Bank Institute of Leadership Management, Rajarhat, Kolkata
 - o SBI "SribriddhiBhavan" Kolkata
 - o IOCL LBP Paharpur
 - o POSOCO, ERLDC Kolkata
 - Preparation of On-Site Emergency Plan
 - o DVC Panchet
 - o DVC Maithon

Plant Maintenance

- Thermography Survey at
 - various units of NTPC
 - Various power plant of State Electricity Boards,
 - Ispat alloy limited, Balasore,
 - o ITC Ltd. Tribeni West Bengal
 - o NSPCL Durgapur
 - o NSPCL Bhilai
 - o NTPC Barh Patna
 - o DVC Durgapur,
 - Major 5 star hotels etc.
 - o IOCL Digboi
 - o IOCL, Guwahati
 - o Mangalore Chemical and Fertilizer Limited
- "Spare parts Management System" at South Eastern Coalfields Ltd. Chhattisgarh (A prestigious assignment of Rs. 60 Lakhs + GST)

Others

Assessment of the Implementation of skill development initiative scheme based on Module Employable Skill in the country, DGE&T, Ministry of Labour, GOI for both West Bengal and Assam State

IN MANAGEMENT SERVICE AREAS

- Productivity Improvement Study at Garden Reach Ship Building and Engineering Ltd. Kolkata
- Productivity Improvement Study at House keeping department of Airport Authority India Ltd. Kolkata
- Work study of the Block Offices/Sub-divisional Offices of West Bengal for staffing pattern and infrastructure requirements
- Implementation of ISO 9000 at DM office Bardhaman, DM Office Hooghly, DM Office Bankura, DM Office PaschimMidnapore, DM Office Birbhum of West Bengal
- Implementation of ISO 9000 at DVC Bokaro, Mejia
- > Implementation of 5'S at Bengal Hammer Ltd. Howrah UNDP Project
- Implementation of "Sevottam" IS 15700:2005 Quality Management Systems Requirements for Service Quality by Public Service Organizations'
- > Implementation of ISO 9000 at Hindustan Copper Ltd.
- > Implementation of Quality Circles at 33 offices of West Bengal State Electricity Distribution Ltd.
- Productivity Improvement Study at PCBL, Durgapr
- > Productivity Improvement Study at Bhagirathi Packing Ltd. Kharagpur
- Productivity Improvement and job evaluation Study at Mitsubishi Chemicals Ltd. Haldia
- Implementation of ISO 9000 at NSPCL Bokaro
- Manpower assessment Jayashree Textile Rishra
- Productivity Improvement Study at Bushan Power & Steel Co.Ltd. Jharsuguda
- Review of Manpower for JLPL Pipeline Gail, Jaipur
- Manpower assessment at Kesoram Rayon, Bandel

- Implementation of ISO 9000:2015 at Hindustan Copper Ltd.Kolkata
- Implementation of ISO 9000:2015 at PWD Mizoram
- Implementation of ISO 9000:2015 at District Magistrate Office Burdwan
- > Preparation of "Schedule of Rates (SOR)" for Eastern Coalfield Ltd. Asansol
- Assessment of Evaluation /Adequacy checking of Escalation / De-escalation formula for amendment of contract manual of Coal India Limited (CIL)
- > Prestigious very high value assignment on WBPEB recruitment examination
- Organizational Study at Bhilai Steel Plant and Bokaro Steel Plant of M/S Steel Authority of India Ltd. (SAIL) (A highly prestigious & high value assignment of RD Kolkata)

TRAININGS

Self- run

- 5 Nos. of Programme (One in each year) on "Certifying Course on Vibration Technology & In-situ balancing" (3 days)
- > 5 Nos. of Programme (One in each year) on "Total Productive Maintenance"
- Electrical Machine Maintenance
- Plant maintenance & Lubrication
- > Efficient Operation and Maintenance of Boiler

In- company

- Implementation of 5'S and Kaizen at Indian Govt. Mint, Kolkata
- Workplace safety at Indian Govt. Mint, Kolkata
- Welding Technology programme on SSW at Burn standard Ltd., Kolkata
- Welding Technology programme on Co2/MIG at Burn standard Ltd., Kolkata
- Reliability Centred Maintenance (RCM) at DVC, Chandrapura
- > Development of Communication Skills at Power Grid Corporation Kolkata
- > Employee Development Programme for National Institute of Orthopaedically Handicapped, Kolkata
- Productivity and quality programmes at Rajpur, Kolkata & Haldia, West Bengal
- > Preventive and cost effective maintenance at IFFCO Paradeep Ltd.
- > Preventive and cost effective maintenance at IOCL Marketing Division, Mumbai
- > Advance training programme on Infrared Thermography at IOCL Panipat
- in-company programmes on Total Productive Maintenance at IOCL Baroda
- Improvement on Shop Floor Productivity & Quality at India Govt. Mint Alipore, Kolkata
- > Training programme on ISO 9001:2015 and ISO 14001:2015 at Railway Wheel Plant, Bela, Bihar

WEBINARS

Conducted Webinars on

- Electrical and Fire Safety Audit of Commercial & High Rise Buildings
- Preparation of On-site Emergency Plan
- Hazard Identification & Risk Management (HIRA)
- Vibration Monitoring and Analysis A corner stone of Condition Based Maintenance
- Effective Management of Maintenance Spare Parts
- World Class Maintenance Management System
- > Fundamentals of Pumps and Compressor Maintenance

- Condition Based Maintenance with special emphasis on Vibration Analysis, Lub oil analysis, IR Thermography
- > Total Productive Maintenance (TPM) in line with JIPM philosophy
- Reliability Centred Maintenance (RCM) and FMEA
- Spare parts Management System and 5S, KAIZEN concept applicable for maintenance and stores
- Behaviour Based Safety for DVC, MTPS Employees
- Plant Safety and Workplace Hazards for DVC, BTPS Employees
- Online Training Programme on Process Safety Management (on-going)

E LEARNING COURSES:

> Designed and uploaded E learning course to NPC website on "Total Productive Maintenance (TPM)"

III. Educational Background

SI.No.	Degree:	Institution:	Туре:	Year:	Specialization:
1	Bachelor of Engineering (BE)	MIT Muzaffarpur, Bihar University	Full Time	1992	Mechanical
2	Plant Engineering	Dr.Ambedkar Institute of Productivity, Chennai	Full Time	1994	Plant Maintenance & Industrial Safety
3	Post-Graduate Diploma	Annamalai University	Part Time	2011	Industrial Safety

Additional Professional Qualifications:

IV. PROFESSIONAL TRAINING UNDERGONE

- 2 Weeks Training course on Toyota Production System (lean Manufacturing) by Japan Productivity Centre, Tokyo Japan
- 5 Months comprehensive Training on "Plant Maintenance Engineering & cleaner Production" at JICA, Kitakyushu International Center, Fukuoka Japan by Japan International Cooperation Agency (JICA)
- Certified Training course on IR Thermography and basic NDT methods The American Society for Non-destructive Testing (ASNT) Level III by Indian Society for Non-destructive Testing (ISNT), Chennai
- Training course on "Total Productive Maintenance (TPM)" by Mr.Sueo Yamaguchi, Principal Consultant of JIPM at Kolkata
- Lead auditor course on "Occupational health and safety management system OHSAS 18001:1999" by DNV
- 2 Weeks Workshop on Integrated Productivity improvement for supporting industry, Dhaka, Bangladesh by APO
- Hazard and Operability Study (Hazop) & Hazard Analysis (Hazan) at IIT Kanpur
- Lead auditor course for ISO 9000 by Quality Management International (QMI)
- Vibration Analysis Technnology
- 2 Weeks Training course on low-cost automation at Bangkok, Thailand by Asian Productivity Organization

- Lead auditor course for ISO 9000:2015 by BSI at Kolkata
- Food Safety Trainer Certification Course from FSSAT at Chennai
- Certification program in Project Management by CEPM at Gandhinagar

V. Research and Publications NIL

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that I shall be responsible for any willful misstatement described herein.

Jarkar Grakoaverly

Date: 06/02/2025

[Signature of Employee]

Place: KOLKATA

SANKAR CHAKRAVORTY

Profile Update History

Last Updated: [Date] Next Review Due: [Date]