Viren Singh

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PERSONAL STATEMENT AND OBJECTIVE

I specialise in plant asset management, maintenance, reliability and operations. I have 10 years of experience in the chemicals, oil and gas and continuous manufacturing industry. I previously managed four plants in a chemicals manufacturing value chain working with Phenolics, Sulphuric Acid and Nitrogen bases. I generally prefer to work in continuous processing, food production, power generation and chemical manufacturing plants or similar industries. Fast-paced, high risk and high value industries makes for an environment in which I enjoy and thrive in. I enjoy leading people to create high-performance teams that work in a collaborative and diverse environment with a focus on the day-to-day as well as long term strategic goals and I have a passion for plant operations and maintenance.

REGISTRATIONS AND QUALIFICATIONS

Engineering New Zealand New Zealand	**Chartered Member (CMEngNZ)** 2021 - Present (Registration number: 2001505)
Engineering Council United Kingdom	**Chartered Engineer (CEng)** 2017 - Present
University of Pretoria South Africa	**Master of Engineering Management (MEng)** 2015 – 2016 (NZQA – level 9)
Department of Labour South Africa	**Mechanical Engineer's Certificate of Competency*** 2014
University of KwaZulu-Natal South Africa	**Mechanical Engineering (BSc)** 2006 - 2010

SKILLS SUMMARY

- Maintenance Management
- Engineering Management
- Asset Management
- Reliability
- Operations Management
- Financial and Capital Management
- Project Management
- Environmental Management
- Risk Management
- Health and Safety Management
- Change Management
- Risk Management
- Talent (People) Management
- CMMS: SAP – technical, financial, HR

WORK HISTORY

Area Manager – Mechanical Maintenance and Operations

Sasol Wax, Chemicals and Solvents, South Africa

November 2018 – July 2021

Reason for leaving: Emigrated to New Zealand

Scope included:

Maintenance, Reliability, Engineering, Replacement projects, Financial (Budget and capital projects), Commercial, HR and People management,

Duties:

- Ensure maintenance compliance to statutory regulations and relevant procedures or codes
- Legally responsible to ensure safety of machinery and Health and Safety compliance
- Determine and deliver on Levels of Service - ensuring plant availability, throughput and maximum sustained operations
- Improve reliability – OEE, RCA investigations, improvement plans, eliminate repeat failures
- Asset management and total cost of ownership – implement strategic maintenance and asset management plans, optimally timed replacement and improvement projects
- Develop operating and maintenance procedures and review maintenance philosophies
- Implement asset condition monitoring, risk-based inspections and piping inspection plans
- Increase preventative and predictive maintenance and reduce unplanned maintenance
- Direct and indirect supervision of foreman, engineers, fitters and contractors
- Build effective working relationships with managers, peers, team members, customers, contractors and suppliers.

Achievements

- Planning and execution of plant turnarounds including the design, fabrication and installation of replacement pressure vessels and heat exchangers
- Plant rotating equipment reliability improvement (MTBF improvement from 45 months between failures to 72 months between failures) by investigating and resolving repeat failures
- Communicated and negotiated with the local government after investigating a major incident thereby successfully preventing reputational damage and legal action against the company
- Developed maintenance plans for all process critical equipment and scheduled on the CMMS
- Developed and implemented specific maintenance plans for hazardous waste storage tanks which led to full environmental compliance for the first time in the plant's history

Mechanical Engineer - Engineering Services

Sasol Gas Loop and Chemicals

(Ammonia, Nitric acid, Ammonium Nitrate, Phenolics and Monomers plants)

January 2015 - October 2018

Scope included:

Rotating equipment, tanks, pressure vessels, pressure accessories, heat exchangers, piping, conveyors, solids handling, loading and offloading facilities, buildings and structural

Duties:

- Provide input into asset management, maintenance, and reliability strategies
- Provide technical support to multiple plants and priorities
- Assist with high priority maintenance challenges
- Project management – planning and execution within cost, schedule and quality
- Provide shutdown/turnaround support to various plants
- Technical role in reliability investigations and plant downtime
- Participate in Hazop studies, PDAs, Risk assessments and Management of Change
- Liaise with the Inspection Authority on equipment integrity issues
- Provide support on risk-based inspections, Root cause analysis and equipment design
- Support in turnarounds and day to day maintenance initiatives, repairs and breakdowns
- Supervise engineers in training to ensure they receive adequate training and plant exposure

Achievements

- Managed two simultaneous critical paths of a nitric acid plant's 30-day major turnaround which included a replacement of a boiler's coils and emergency repairs to a large heat exchanger which enabled the plant to start up on time.
- Managed an emergency repair project for a titanium condenser which included sourcing tubes from around the world and repair work on a 24/7 schedule.
- Created data books according to ASME requirements, arranged welding repairs and relevant inspections to successfully get permission from the local Department of Labour to commission a previously scrapped $1.5 million ammonia pipeline.

Mechanical Engineer – Plant support, maintenance and operations

Sasol Gas Loop (Ammonia, Nitric acid and Ammonium Nitrate plants)

July 2012 – December 2014

Scope included:

Rotating equipment, tanks, pressure vessels, pressure accessories, heat exchangers, piping, conveyors, solids handling, loading and offloading facilities, buildings and structural

Duties:

- Provide input into asset management, maintenance, and reliability strategies
- Provide technical support to multiple plants and priorities
- Assist with high priority maintenance challenges
- Project management – planning and execution within cost, schedule and quality
- Provide shutdown/turnaround support to various plants
- Technical role in reliability investigations and plant downtime
- Participate in Hazop studies, PDAs, Risk assessments and Management of Change
- Liaise with the Inspection Authority on equipment integrity issues
- Provide support on risk-based inspections, Root cause analysis and equipment design
- Support in turnarounds and day to day maintenance initiatives, repairs and breakdowns

Achievements

- Fabrication and installation of a rail loading rack system that allowed for the safe opening of top hatches and loading of Ammonium Nitrate products into rail tankers
- Complete redesign and installation of a nitric acid pump delivery system with new acid proof civils
- Design review, manufacturing and installation of cooling water block valves enabling the isolation of different trays on a nitric acid absorption tower enabling faster and easier fault finding and future repairs.

Junior Mechanical Engineer

Sasol

January 2011 – June 2012

Duties:

- Satisfy the requirements of the Sasol graduate development program
- Rotations to turbo machines, pumps and condition monitoring departments
- Rotation to pressure vessel and piping design and metallurgy department
- Assist in large scale projects under the guidance of senior project engineers

Achievements

- Appointed as the junior engineering chairperson responsible for the integration of all new graduate engineers into the work environment and reporting to the managing director. Managed a budget to host training and networking events and allowed for engagement with senior leadership from an early point in my career.

PERSONAL AND TECHNICAL SKILLS

Asset Management: development of effective risk based maintenance, operations and reliability strategies to achieve business strategic objectives and goals whilst reducing lifecycle costs.

Leadership: influencing people to ensure a diverse team (culturally, age, race and site location) works together towards a combined goal, takes ownership, undergoes continuous development and has fulfilment in their work.

Collaboration: managing internal and external relationships to ensure a collaborated effort towards the goals of the enterprise. Working with multidisciplinary and cross functional teams (Production, electrical, instrumentation, finance, commercial, safety, projects, engineering, HR etc.).

Technical Knowledge: knowledge of plant operation, maintenance, reliability, projects, finance, commercial, health and safety. Knowledge of various types of equipment including static and rotating equipment.

Risk management: analysis of risk to implement identification, elimination, reduction or mitigation measures. Understanding and communicating relevant risk levels.

REFERENCES

Available on request.

*https://www.icmeesa.org.za/index.php?option=com_content&view=article&id=22&Itemid=283#:~:text=The%20Government%20Certificate%20of%20Competency,certification%20for%20mechanical%20or%20electrical