



## VIKAS RISHI

(B.E, CHEMICAL ENGINEER)

ADDRESS FOR  
COMMUNICATION

H.NO 101, Pearl 132, Seremban-2, Negeri Sembilan, Malaysia

PIN-70300 | MOBILE: +60-1160680882 (Malaysia)

**EMAIL:** [rishi.vikas81@gmail.com](mailto:rishi.vikas81@gmail.com)

Citizenship: INDIA

### CARRIER SUMMARY

- ✓ **16 years** of global experience in **Oil & Gas Refining**, Process Engineering, Technical Services, Operations, Process Safety, Revamp/ expansion Projects, Commissioning & Turn arounds.
- ✓ Working as **Process Technology Section Lead @Hengyuan Refining Company** (Formerly known as **Shell Refining Company**), Malaysia.
- ✓ Exp. In Key Refining technologies i.e **Crude Distillation (Adv. level)**, **Catalytic Reforming (Adv. level)**, **Delayed Coking (Adv. level) & Hydrotreating (intermediate level)** .

### KEY ACHEIVEMENTS

- ✓ Lead Capacity **Debottlenecking projects** of CDU/VDU, CCR, & Merox units @ HRC, Malaysia
- ✓ Performed No. of **Trouble shootings, optimizations, Feasibility studies** in assigned units to sustain the unit continuity, Maximize profitability & reliability @ HRC, Malaysia.
- ✓ Lead **Technology evaluation of Recovery Max Technology (CCR), Pachinox, Catalyst selection @HRC**, Malaysia
- ✓ Lead CDU/VDU **Capacity Revamp project** (from 9 MMTPA to 11.5 MMTPA) @ HMEL, India.
- ✓ Lead evaluation & commissioning of Ultralow pressure **Hot well gas Treatment Project @ HMEL**, India.
- ✓ Lead the **High Acid Crude (HAC)** Processing Project in CDU/VDU @ HMEL, India
- ✓ Process Engineer for Delayed Coke Unit **Capacity revamp** from 150 to 180 KBPSD @ RIL, India.
- ✓ Process Lead and Technologist for 3 **Major Turn Arouds @ HRC, RIL and HMEL**.
- ✓ Certified in **Shell TSE101** Course on Technical Safety.
- ✓ **Global refining Experience** in India and Malaysia as **Team Leader**.

### KEY SKILLS

- ✓ Proficient in Analytical and Plant motioning tools like **PI & IP21 Process Historian, LIMS** etc
- ✓ Proficient in process simulation tools e.g **KBC Petro-sim, HTRI, Sulcol, Kg Tower** etc.
- ✓ Proficient in performing & evaluating **Feasibility studies, Hydraulic, line & equipment sizing**.
- ✓ **Process Design, Optimization, Troubleshooting, De-bottlenecking, Technical Safety**.
- ✓ Conversant with **Shell design and Engineering practices (DEPs)**.
- ✓ Proficient in **FEED, Datasheets, PFDs, PIDs** etc
- ✓ Proficient in **Process Safety Management (PSM), Risk Assessment, LOPA & HAZOP**.
- ✓ **Leadership Skills** in leading a team with diverse level of Employees.

## PROFESSIONAL EXPERIENCE

---

1<sup>st</sup> Jan 2018 – **Process Technology Section Lead @ Hengyuan Refining Company (Formerly Known as Shell Refining Company), Malaysia.**  
Till Date

### **Technical Responsibilities:**

- Responsible for providing Technical Support to Key refining Units i.e **Crude Distillation, Catalytic Reforming (CCR) & Hydrotreating, Merox & Tank farm.**
- To ensure effective process monitoring & Optimization to meet unit KPIs i.e Product Quality, Yield, energy & efficient operation.
- Responsible for evaluating and implementing business improvement tactics and schemes for Margin upliftment of refinery.
- Responsible for Technical assessment & approval of new crudes oil and developing procedure for crude oil screening and selection.
- Responsible for new technology evaluation & selection through feasibility study.
- Responsible for review of Engineering deliverables i.e Design Basis, FEED, PFDs P&ID, Equipment datasheets, H&MB, Utility Summary, Operating Manual etc.
- Coordination with Licensors, engineering contractors, equipment suppliers for work progress & engineering packages and evaluation of new technologies.
- To address reliability issues & perform Process trouble shooting & de-bottlenecking in the assigned units.
- Co-ordinations with various departments like scheduling/planning, Maintenance, Operations, Projects, engineering & finance for technical issues.
- To perform Process Hazard Screening, Risk Assessment, Technical review and facilitate PHA/HAZOP for the plant changes under MOC Process.
- To assist in Oil loss accounting & maintaining within target limits
- To review and approve the process calculations i.e Hydraulics, Equipment Sizing & process Datasheets, PSV & line Sizing etc.
- To perform and facilitate incident investigation studies on process Incidents & implement process recommendations.
- Responsible for providing start and commissioning support, reviewing standard operating procedures and Participate in PSSR.
- Lead Major Refinery Turnaround from Technology Side for equipment inspections, modifications, catalyst replacement & start up support.

### **Managerial Responsibilities:**

- To Provide guidance and technical support to the team and to facilitate them to enhance their Technical & Soft Skills.
- Setting the Priorities of Jobs through one-to-one discussions & team meetings.
- Setting up & timely review of team member's yearly targets & doing appraisals.
- Facilitating the succession plan for subordinates.
- Assessing & arranging the training needs for team members.
- To develop the requirement Competencies documents for each role/position.
- To implement the initiatives for employee engagements within Team.

7<sup>th</sup> April 2014 **Deputy Manager (Technical Services) @ Hindustan-Mittal Energy Limited,**  
– **Petroleum Division Bathinda, Punjab, India**

- 29<sup>th</sup> Dec 2017
- Providing technical support for Crude Distillation unit , Revamp projects, Tank Farm and Delayed coking ( Contingent basis for DCU) for smooth running & profit maximization through process optimization.
  - Monitor product specifications, plant KPIs & Equipments Performance through process Historian – IP20, DCS etc and providing recommendations to maintain the same within defined target window.
  - Perform process calculations i.e Hydraulics, equipment efficiencies, PSV & line Sizing & for process trouble shooting etc.
  - To perform technical review & PHA/HAZOP for plant change under MOC Process.
  - Identifying and implementing business improvement tactics and schemes for Margin upliftment of refinery through Feasibility Study.

**As Process lead for CDU/VDU Expansion project (from 9 to 11.5 MMTPA)**

- Prepared the design basis for Unit expansion & package equipment like De-salter, VDU ejectors, new LPG absorber etc.
- Identification of unit bottlenecks and finalization of Project scope.
- Review of Basic Engineering Design Package and Engineering documents like PFD, PIDs, datasheets, HMB, Process Manuals, Flare adequacy reports etc.
- Technology evaluation of technical offers/bid by multiple engineering contracts.
- Coordination with designers, engineering contractors, equipment suppliers for comments resolution, work progress & finalization of engineering documents.
- 3D model & plant layout review of unit for new installations.
- Conducting HAZOP, factory & site acceptance tests of DCS & ESD control system.

**As Process Lead for High Acid Crude (HAC) Processing Project**

- Prepared Basic engineering Package for High TAN crude processing in CDU/VDU.
- Coordination with Detail engineering contractor, equipment suppliers & chemical vendors.

**As Process Lead for Hot well gas Treatment Project**

- Preparation of Design basis for vacuum hot well gas Amine treatment project for absorption of H<sub>2</sub>S from hot well gas.
- Technical review & finalizing of the engineering documents i.e (PFDs), PIDs, HMB, Process datasheets, technical bid tabulation, Utility requirement, Flare adequacy report, HAZOP report etc.
- Coordination with engineering contractor, equipment suppliers for queries resolution and finalization of engineering documents

- To provide technical support in Delayed Coker unit to ensure the integrity & profit maximization of Unit through process optimization.
- To monitor product specifications, plant KPIs & Equipments Performance through process Historian – IP20, DCS etc and providing recommendations to maintain the same within defined target window.
- To identify bottleneck areas, process deviations & perform trouble shooting & debottleneck studies.
- Identifying and implementing business improvement tactics and schemes for Margin upliftment of refinery through Feasibility Study.
- To perform basic Engineering, Mass & Energy Balance & Design Basis for new project/revamps using Process Modeling & simulation tools like PETROSIM, HTRI.
- Preparation & Review of PFD, PID, Equipment datasheets & SOPs Etc.
- To review & evaluate technical offers & other engineering documents i.e equipment datasheets, BEP, Technology docs etc.
- To perform process calculations i.e Hydraulics, equipment efficiencies, PSV & line Sizing & for any kind of process trouble shooting etc.
- Giving assistance in plant start up, shutdown & commissioning.
- To perform PHA, Feasibility Study & HAZOP Analysis related to existing and future mode of operations.

**Major Projects:-**

**DCU Capacity revamp & Test Run**

- Involved in preparation of Design Basis & Job Scope for Unit Capacity revamp.
- Prepared Heat & material balance and identified limiting equipments, lines etc.

**Process De-Bottlenecking and Trouble shooting Projects**

- Naphtha Splitter O/H cooling system debottlenecking for plant revamp capacity.
- Debutanizer column Bottom reboilers fouling mitigation with provision of modified Fractionator Pump around configuration.
- Debottlenecking of Main Fractionator O/H Cooling system by identifying improved design of O/H condensers.

**Reliability and Process Improvements**

- Nh4Cl de-sublimation issue resolved in Fractionator's LCGO P/A Circuit by utilizing hydraulic & heat exchanger available margins.
- Optimization of Fractionator O/H Cooling system load distribution to reduce HP steam consumption in compressor.

**Energy Conservation Schemes**

- Coker Feed preheats exchanger's circuit heat integration improvements.
- Energy scheme of using LCGO PA in Stripper reboiler in place of MP steam.

**Plant Operations**

- While Working as Plant Operations Engineer, was responsible for smooth plant operations & process control of Thermal cracking (Delayed Coking Unit) including Commissioning, Decommissioning, chemical Decontamination, start up, Shutdown, Trouble Shooting, Equipment Performance Monitoring.

16<sup>th</sup> Nov 2004 – **Jr. Manager (Process) @ Jindal South West Steel Ltd, Bellary, India.**

10<sup>st</sup> July 2007

- Process control of Coal Carbonization Unit including Pre-commissioning, Commissioning, decommissioning, Start up, Shutdown, Trouble Shooting.
- Monitoring & controlling coke quality with respect to the coking time, oven preventive maintenance, coal quality, coal – blending operation.
- Providing technical support to the area for safe and efficient day-to-day operation and assisting with trouble shooting in process problem areas & Resolving operating problems with the support of the maintenance departments & Handling plant emergencies.
- Monitoring & improving of process Equipment efficiencies and plant performance through various available tools
- Execution of Coke-oven Battery heating and commissioning.

## EDUCATION

---

2001 – 2004 Bachelor of Chemical Engineering Thapar Institute of engineering & Technology, Patiala, India.

1999 – 2001 Diploma in Chemical Engineering, Sant Longowal Institute of Engineering and Technology, Longowal, India.

## PERSONAL DETAILS

---

DATE OF BIRTH 18<sup>th</sup> November 1981  
NATIONALITY Indian  
MARRIED Yes  
LANGUAGES KNOWN English, Hindi, Punjabi.