**HAFIZ SYED HASSAN MASOOD (CHEMICAL ENGINEER & M.B.A (INDUSTRIAL MANAGEMENT))**

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**CAREER SUMMARY**

A Competent, Technically curious & result oriented ‘Chemical Engineer’, with a comprehensive understanding of Process Safety Management, Process technology & operation methods. Experienced in Commissioning and Master Start-up of Naphtha Splitter, Hydro-treater & Isomerization. Monitored Lube Refinery section, i.e. Vacuum Distillation, Propane De-asphalting & Fuel Refinery, i.e. Crude Distillation, Naphtha Hydro-treater & Platformer section pertaining to Technical Advisory services. Eager to grow in the fast evolving environment of an organization that diversify my career and ignites my potential for professional growth and polish me towards organizational excellence, productivity and boosting its sustainability.

**PROFESSIONAL EXPERIENCE**

**NATIONAL REFINERY LIMITED (10/2014 to Present)**

# Shift Incharge - Naphtha Block and Flare Monitoring (02/2016 to present)

* Overall production control by maintaining Safe and optimized plant operation from feed intake into the finish product
* Conduct research to develop improved manufacturing processes. Ensure that processes are impacting results towards the optimum performance levels
* Conduct regular plant tests run, heat & mass balances to maintain design models for asset capability and process improvement
* To evaluate vendor’s quotations, technical bids & clarifications, documents, drawings, calculations & inspection
* Procurement of Control valves, Pumps, Corrosion Coupons, Dosing Chemicals and Gas detection dragger tubes
* Schedule preparation for first line maintenance for operators such as running equipment change over, filter replacement, strainer cleaning and preservation of the valves, flanges, and equipment.
* Plant change modifications, PFD & P&ID final recommendation for approval
* To maintain complete record or details of “lesson learnt” from any incident after incident investigations
* To plan activities, work scheduling, assigning responsibilities to Engineers and Operators , DCS training through Simulator
* Process Safety Management performance evaluation
* Implementation of Health Safety and Environment policies, procedures and guidelines
* Work for Permit System, Hazard Identification, Risk Management, Incidents reporting, investigation analysis, waste minimization, pollution and prevention control, emergency response plan preparation
* Delivering training relates to SCABA, ELSA usage for H2S handling, fire fighting, Gas detectors etc

**Commissioning of N.S, N.H.T & Isomerization**

Supervision of the installation, Commissioning, Master Start up and Unit normalization activities of Naphtha Splitter, N.H.T & Penex

* Providing punch list, Materials inspection, verification of back punching
* Plant air purging, Blast purging, Water & Steam flushing of Column and vessels, as well as Chemical cleaning (i.e. Acidization)
* Equipment and Pipelines tightness testing,
* Inspection of Vent drains, NRV’S, Pressure Safety valves as per specification provided

# Instrument Control loop testing,, test run of the running equipment without load, function test of the instruments, function test of the equipment, valve exercising, status checking with compared to the field, all F&G detectors calibration, ESD system function test as per cause and effect diagram. Graphics page modification

# Catalyst and Adsorbent loading

# Problems trouble shooting and preparation of Standard Operating Procedures

**Process Engineer (10/2014 to 02/2016)**

**Technical Services and Planning**

Monitored Vacuum Distillation, Fuel Refinery i.e. (Crude Distillation, Naphtha Hydro-treater & Platformer) section of the complex.

* Achieve manufacturing Key Performance Indicators (KPI’s) and drive continuous improvement
* Provide Technical support to ensure Product quality, operational constraints & Market requirements, Responsible to take critical decisions in the resolution of plant operational problems, communicating data and meeting with the proprietors until ensuring on-specification products.
* Perform Calculations related to Mass & Energy balance , line sizing, pressure drop, Refinery energy utilization, running day’s production losses, Inventory management, i.e. (Safety stock, Minimum, maximum & average stock), Chemical consumptions.
* Process Investigations & Technical Process Report on Findings.
* Procurement of Control valves, Pumps, Corrosion Coupons, Dosing Chemicals and Gas detection dragger tubes
* Process Development new initiatives for reducing Variable Cost, utilization & conservation of energy resources.

# Achievements

* Lead Installation and Commissioning activities of the Naphtha block and train young energetic less experience team
* Lead Platformer regeneration 2018 as a “Coordinator”, without Honeywell representative, saved 20,000 USD/day
* Design and development of Operating Training Process Simulator Modeling and conduct acceptance tests on equipment purchased from Schneider Electric for Isomerization Plant
* Manage project of RON up-gradation to meet Government Gasoline specification of 92 RON from 87 RON, that rewarded millions of subsidy per month to organization
* Cooling water line blockage issues are resolved to maintain safe and smooth plant operation
* Supervise Fuel Refinery turnaround 2014 & 2016 as a Technical representative, including Catalyst R-56 unloading & loading, its regeneration, safe keeping of radioactive hazardous chemicals, critical exchangers pressure testing and Furnace decoking
* Solved Naphtha Hydro-treatment corrosion issues, resulted in equipment’s thickness losses by reducing Chlorides, Iron. Improving PH, suggesting corrective actions & Local Crude corrosion source identification by test runs of separate crude
* Lead Caustic Scrubber raschig rings, MEROX Charcoal unloading as well as distribution and loading

**Initiatives:**

* Through detailed technical analysis of L.P condensate design, saved condensate losses around 2500 m³/month
* Study feasibility of Trim coolers bypass and installed, that helped avoid shutdowns due to tube plugging or leaking
* Proposed & approved minimum flow line installation for caustic heater temperature controlling that reduced steam consumption
* Study feasibility and modify drainage system, sampling points positions of plant to ensure reliable and safe operation
* Penex scrubber caustic circulation nozzle installation so as to shower evenly around the column’s internal to enhance its life
* Study technical feasibility and installed Flywheel control for process Improvement i.e. top temperature controlling
* Flow indication system for controlling water wash, Spray Nozzle injection at N.H.T to save equipment from corrosion

# Researched and investigated the root cause of excessive disturbance in the water-chloride balance of Platformer, controlled the moisture that resulted in RON enhancement from 83 TO 90.

**RAJBY INDUSTRIES (12/2014 to 10/2014)**

**Process Improvement Engineer**

# Professional Achievements

* Improved product efficiency, Quality from 83 to 90 % by calibrating (Level, temperature, time ,rotation) of washing plant
* Reduced the cost per garment by controlling water consumption, chemical dosage & enhanced rate of production

**Initiatives:**

* Introduced the lot card system, labeling the garments so as to reach the root cause of garments rejection
* Employee’s rating initiated using a diversified approach resulted in effective qualitative products and employee motivation

**Washing Department**

* Ensure compliance of company policy & procedures
* Implementing Process parameters compliances
* Assuring the quality and Safety on one of the most modern washing plants

**Research & Development**

* Samples designing and development
* Daily Planning and Customer dealing

**QUALIFICATION**

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| Master of Business Administration (MBA) | Institute of Business Management (09/2014-08/2017) | 3.21 CGPA |
| Bachelor of Engineering (Chemical) | N.E.D University of Engineering & Tech. (01/2010-12/2013) | 1st Division |
| Intermediate (Pre-Engineering) | D.J Sindh Govt. Science College (06/2007-06/2009) | A Grade |
| Matriculation(Science) | Oxford English Public School (06/2005-05/2007) | A+ Grade |

**CERTIFICATIONS**

* Permit to work Authorization
* UOP Penex Graduate
* Drier Regeneration Control System
* Hot & Cold work permit authorization
* Boiler Engineering
* Society of Chemical Engineering (SCHEME)
* IELTS

**PROFESSIONAL SKILLS**

* MS Office / Microsoft VISIO
* Aspen Hysis / Operator Training Simulator Software
* Leadership & Team building
* Communication skills
* Decision Making /Analytical & Problem solving