**AHMAD HAMDY MOHAMED**

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Dear Hiring Manager,

As a highly motivated and results-oriented professional with 8+ years of experience in the oil and gas industry, I possess a proven track record in contributing to all aspects of project development, from technical input and engineering solutions to documentation and training.

**My expertise encompasses**:

**Project lifecycle involvement**: PFD, P&ID, 3D model reviews, HAZOP/SIL/HAZID workshops, value engineering, FAT/SAT, and operating manual development.

**Technical proficiency**: Process simulation, heat transfer, control valve sizing, nitrogen blanketing, demineralization, crude distillation units, process optimization, Plant Operations, Process safety , and hydraulic calculations.

**Software mastery**: Aspen Hysys, Aspen Plus, Pro II, HTRI, AFT suite, AutoCAD, and Microsoft VISIO.

**Standards adherence**: PSM, API , PIP etc.

**Training and mentorship**: Delivering in-class, on-site, and online training programs.

I am a passionate learner eager to contribute my skills and knowledge to a dynamic team. My strong work ethic and dedication to safety make me a valuable asset to any organization.

Thank you for your time and consideration. I welcome the opportunity to discuss my qualifications further and can be reached at the mentioned above contacts.

***Yours Sincerely,***

**Ahmad Hamdy Mohamed**

**AHMED HAMDY MOHAMED MOHAMED**

**PROCESS/CHEMICALENGINEER**

**ANALYSIS SIMULATION**  **TROUBLESHOOTING**  **TRAINING**

**OBJECTIVE**

Process/Chemical Engineer in a well-established, safety oriented and growing Organization/Refinery where decent experience in executing planned, predictive & preventive maintenance and extensive knowledge about process industry can be further **utilized, enhanced and shared**.

**EDUCATION & CREDENTIALS**

Bachelor of Engineering (B.E.) in Chemical Engineering/Refining and Petrochemicals – Faculty of Petroleum and Mining Engineering, Suez, Egypt

**Software Proficiency :** Aspen Hysys, PipeFlow Expert, Pro ii, MS Office, HTRI, Adobe, AFT Fathom, AFT Impulse, AFT Arrow, AFT Steam

**Linguistic Proficiency : Arabic, English**

**EXECUTIVE SUMMARY**

* **Maintenance Field Coordinator/Engineer with 2 years of experience across Project Planning**, Commissioning & Maintenance of Static & Rotating Equipment & Pipelines in Oil & Gas Refineries in Routine, T/A and Shutdown activities. Repeatedly achieved maintenance objectives within time/quality parameters ensuring quality, productivity, safety & client appreciation and reducing maintenance backlog.
* **Predictive Maintenance Senior Inspector with 1 year experience of** participating in plant condition monitoring, vibration and field process data collection, commissioning, test run observation and continuous coordination with senior Engineers to plan daily activities.
* **Process/Operation Engineer with +9 years’ experience** As a process Engineer, I have been involved in various aspects of project development, technical input, and engineering solutions for oil and gas processing units. I have participated in PFD, P&ID, 3D models review sessions, HAZOP / SIL / HAZID / QRA workshops / reviews / closeout sessions, value engineering sessions, FAT / SAT, and operating manual and procedures development.
* I have also gained extensive experience with process simulation, heat transfer equipment simulation, control valves sizing, nitrogen blanketing study implementation, ion exchange demineralization design and troubleshooting, process optimization, hydraulic calculations, and feasibility studies, using various software tools such as Aspen Hysys, Aspen Plus, Pro II, HTRI, AFT Fathom, AFT Arrow, AFT Impulse, and Microsoft VISIO. Additionally, I have contributed to the preparation and implementation standard for collection and exchange of reliability and maintenance data for equipment.
* I have also developed my skills as an instructor, delivering in-class, on site, and online training, and preparing course materials and outlines. I am passionate about learning new technologies and applying them to enhance the efficiency and safety of the oil and gas industry.

**PROFESSIONAL EXPERIENCE**

**ASORC REFINERY**

*(Working for ongoing projects within Detailed Engineering Phase)*

**PROCESS ENGINEER I (Technical Support Department)(2022 till now)**

* Keeping contact with the vendors’ technical services to provide effective proposals, modifications, optimization works and engineering solutions for units’ operation & performance issues.
* Participates in PFD, P&ID, 3D models review cycles and sessions, HAZOP / SIL / HAZID / PHSER / QRA workshops / reviews / closeout sessions, value engineering sessions, FAT / SAT.
* Participate in technical design / functional reviews and procedural changes for all Management of Change (MOC) activities, plant modification related to technology and facilities.
* Provides Process Engineering support for the development and authorization of Key Documents (Philosophies, Policies, Design Basis) for all project works covering Assets, Major and minor, expansions, Projects, Brownfield Projects, and New field projects to ensure consistency and efficacy during different phases.
* Complete awareness of the industry standards latest Editions (API, PIP, ASTM, ANSI, ISA,...)
* Conducting economic-technical studies in selection of optimum process to improve operational efficiency.
* Providing expertise to optimize process control functionality and develop efficient control strategies.
* Participate in incidents’ investigations
* Develop process simulation techniques using (ASPEN HYSYS, PRO II, HTRI, AFT Fathom, AFT Impulse) software.
* Responsible for the daily monitoring all the jobs done in the units including the operating conditions, maintenance work and chemical injection and dosing.
* Perform Mass and heat balance, equipment design and rating.
* Performed all units’ process calculations (such as heater, pumps & compressors efficiencies’) to keep a well monitoring on the units equipment.
* De-bottlenecking and unit revamp/OPTIMZATION including equipment preliminary design, rating and equipment sizing.
* Unit troubleshooting, and monitoring.
* Plan and implement process/utility-related activities aimed at maximizing plant capacity, efficiency and safety.
* Units Involved : CDU, VRU, SWS, LPGM, KMU, Demineralization, Condensate Polishing.

**ASORC Refinery, Egypt**

*(Working for Newly Running plants of Utilities Area)*

**SENIOR OPERATION ENGINEER/Acting TEAM LEADER (OPERATIONS DEPARTMENT)(2020-2022)**

* Promoting a courteous, pleasant, responsive and helpful work environment. Works collaboratively and constructively with others to achieve team goals.
* Establish collection and exchange of reliability and maintenance data for more than 500 equipment and provide guidance on the data required to collect, maintenance and reliability data for analysis (RAM, bad actor, etc.)
* Prepare and Coordinate Plant and Equipment start-ups with other disciplines (Static, Rotating, Non plant, Instrumentation, etc)
* Prepare and Coordinate Plant and Equipment shutdowns with other disciplines (Static, Rotating, Non plant, Instrumentation, etc)
* Provide support in terms of Operational troubleshooting, upset conditions and abnormal situations.
* Establish Reliable Trend Groups for proper plant monitoring.
* Participate in Risk Management, technical reviews, Design, HAZOP, SIL/LOPA
* Ensuring a 100 % check list compliance (like start-up / shutdown of units and scheduled check lists)
* Signing of all related job permit to work applications.
* Raise notifications for any request of maintenance job.
* Prepared the system or equipment in preparation for maintenance work.
* Reporting any DCS and Instrument faults.
* Coaching and mentoring new hires and other operators.
* Preparing log book and turns over events in the units, adjustment on key variables, and maintenance work progress, to the next shift.
* Executing process optimization instructions TSD or Process Engineer.
* Helping to troubleshoot to solve process control related problems.
* Follows-up on problems identified at commencement of shift or on continuing process problems identifying any action to be taken and initiating actions to overcome situation.
* Units Covered: Demineralized water unit, Condensate treatment, Boilers, Nitrogen generation, Cooling tower,

**ASORC REFINERY**

*(Working for Running plants and Ongoing projects within Detailed Engineering Phase)*

**PROCESS ENGINEER(Technical Support Department)(2018-2020)**

* Preparing / Reviewing the Daily production report.
* Reviewing the Daily Overall Lab analysis.
* Monitoring the process performance.
* Analyzing Daily Unit Parameters. Investigate the possibility of any deviation.
* Routine process parameter monitoring and look for any problem using DCS records.
* Providing guidance to the operation and other departments when needed, especially during emergency -situations.
* Communicating with operations and lab for any deviation.
* Regular site visit for any upset, problems and other safety observation.
* Reviewing P& ID and Isometric Drawings for any modification.
* Sketch P & ID for any modification suggested in the system.
* Carry out simulation of different unit operations to check the performance.
* Carry out the inspection of equipment internals during shut downs and TA from process point of view.
* Continuous monitoring of process and equipment whose reliability is low.
* Reading the process, operating manual for unit regularly, and keeping self-updated with all the standards: operating/startup/shut down/emergency/safety procedures.
* Participating in HAZOP, HAZID, SIL studies, Model Review, and managing HAZOP actions close out.
* Participate in the preparation of operating manuals and instructions.
* Review new projects documents, investigate gabs and suggest improvements.
* Participating in Detailed Engineering phase review of New Assiut Refinery Project of total 3.8bn $.
* Units Involved :NHT, CCR, ISOM, NAPHTHA SPLITTER, Demineralization, STEAM CNDENSATE SYSTEMS, OFFSITES, UTILITIES

**ASORC REFINERY**

*(Working within CDU, VRU, and Utilities Area)*

**PROCESS PANEL OPERATOR/OPERATIONS ENGINEER(OPERATIONS DEPARTMENT)(2017-2018)**

* Prepare and Coordinate Plant and Equipment start-ups with field operators
* Prepare and Coordinate Plant and Equipment shutdowns with field operators
* Compiles and records data, instrument readings and results of lab analyses.
* Monitoring and adjusting Unit controls to ensure safe and efficient operating conditions.
* Control Process start-up, shut down, and troubleshooting.
* Observes instruments, gauges, and meters to verify conformance to specified quality and quantity of product.
* Compiles and records operating data, instrument readings, documents, and results of laboratory analyses.
* Operates auxiliary equipment and controls multiple processing units during distilling or treating operations.
* Understanding and follow all safety procedures, standing orders, safety rules and regulations.
* Acting as a Shift Team Leader if required.
* Receiving handover from the outgoing Panel Operator.: Key Trends, Alarms Checking, Instrument Overrides, Maintenance activities
* Attending daily tool-box meeting with the STL and other members to discuss the day’s activities.
* Monitoring and manipulating all control parameters to ensure that all units and equipment are working within normal operation range, like the pressure , temperature, flow and level
* Operating and controlling the process within the operating envelope to ensure that the production plan and product specifications are met.
* Product Quality Monitoring
* Fully Understanding of Control Loops Including: Manual Operated, Auto Operated, Cascade, Split Range..
* Analyzing information and makes adjustment quickly and effectively during abnormal conditions to ensure safe operations. (Trouble-shooting and problem solving
* Analyzing sample results and makes changes as required.
* Understanding the links with other departments and units on feed and product streams
* Communicating properly by radio and phone.,Simple language, Clear, Precise
* Writing reports, preparing log book or TOB and turns over events in the units, adjustment on key variables and maintenance work progress to the next shift.
* Coaching and mentoring new hires and other operators.
* Signing of all related job permit to work applications.
* UNITS COVERED: CDU, VRU, SWS, UTILITIES , Demineralization, Condensate Polishing, Steam Boilers.

**ORPIC (REFINERY), OMAN**

*(Working through the mechanical maintenance contract with ALBHATINAH LLC.)*

*(Working within RFCC, Gas plant, and Utilities Area)*

**MAINTENANCE FIELD COORDINATOR /ENGINEER - SOHAR, OAMN (2016-2017)**

* Issuing of various permits as Work Permit Receiver for maintenance activities.
* Ensuring work processes & maintenance activities are implemented as per Job Safety Analysis (JSA).
* **Inter - departmental co-ordination** with Operation, Process, Electrical, Instrumentation, Technical Services Departments and other Contractors.
* Supervise periodical **Scaffolding** required for the implementation of the critical maintenance activities at elevated locations.
* Preparing daily, weekly and monthly work reports.
* Reviewing of **Job Hazard Analysis (JHA).**
* Conducting Visual Checking (walk-throughs) inside Units.
* Supervision & Coordination with Production & Planning for daily maintenance jobs.
* Ensured that all materials and resources are available to implement planned activities.
* Reporting to ORPIC maintenance superiors on Daily basis regarding the jobs to be performed.
* Coordinating with ORPIC Maintenance Technicians during routine maintenance jobs.
* Performed periodic evaluations of subordinates by delegating workloads and schedules.
* Executing the maintenance jobs with high quality and safety.
* Planning day to day jobs as per the schedule.
* Reporting site observations.
* Uni

**SKILLS DEVELOPED:**

* Working with diverse international work group
* International Safety Practices
* Timely identification of risks & their cost implications
* Proper field knowledge of different units of sohar refinery, aromatics plant and polypropylene plant.

**ORPIC (REFINERY, AROMATICS, POYPROPYLENE, SRIP), OMAN**

*(Working through the mechanical maintenance contract with ALBHATINAH LLC.)*

**SENIOR INSPECTOR PREDICTIVE MAINTENANCE– ORPIC/Al BHATINAH (2015 – 2016)**

**DUTIES PERFORMED:**

* Implementation of day-to-day routine and on call equipment condition monitoring and vibration collection.
* Field process data collection.
* Participation in condition analysis and diagnostics either equipment or plant level alongside with senior Engineers.
* Prepare plant and equipment condition trends for vibration, temperature, and other process parameters using PI Process book and report to senior engineers.
* Attending daily meetings to elaborate daily jobs and to report work progress.
* Participation in troubleshooting operation/equipment related problems on daily basis with senior Engineers.
* Participation in failure analysis with senior Engineers to deliver proper inputs and observations.
* **Participation in Pre-Commissioning** and Commissioning activities of new refinery, attending test runs of new installed equipment to ensure proper database establishment for future reference.
* Coordination with Commissioning team to attend planned test runs.
* Re-schedule failed test runs to ensure deviation from commissioning standards eliminated and fixed.
* Daily interaction with client & preparation of daily & weekly progress reports.

**SKILLS DEVELOPED:**

* Proper data collection, organization and analysis.
* Rotating Equipment troubleshooting.
* Communication & Report Writing.
* Plant Commissioning philosophy and procedures

**KEY CHALLENGES & OUTCOMES**

* Effective utilization of assigned equipment and resources.
* Plan and organize high work load.
* Covering several process units leads to proper understanding of critical equipment and process constraints.
* Contributing to the Client in identification of opportunities for continuous improvement of maintenance procedures to improve reliability of equipment.

**PROJECT SUPPORT ENGINEER – AL BHATINAH LLC SOHAR, OAMN (2015-2015)**

* Support management in establishing proper documentation system.
* Implementation of proper work manuals for each department.
* Train new employees to fit within organization policies and organogram.
* Prepare monthly activity report to management.
* Participate in local workshop improvement, preparing modified layout drawings.
* Participate in and Coordinate mobile equipment shifting to clients locations as per standards and policies.

**SKILLS DEVELOPED:**

* Scheduling and planning.
* Presentation skills.
* ISO Standards.

**ORPIC TRAININGS & CERTIFICATIONS**

* Permit to Work
* Confined Space Entry
* Working at Height
* Job safety analysis
* Commissioning and Pre commissioning orientation.

**KEY MILESTONES:**

**Technical Support and Troubleshooting – 2018**

**As PROCESS ENGINEER - ASSIUT, EGYPT**

**JOB RESPONSIBILITIES:**

* Process Simulation
* Analyze the raw data which was extracted from the system and daily operations reports to verify the data is within the normal and expected range.
* Use the raw data which was gathered in the data spreadsheet to calculate performance Key Performance Indicators (KPIs).
* Identify the incident for which troubleshooting support is required.
* Suggest process modifications to Operations for implementation in order to solve the problem.

**KEY CHALLENGES & OUTCOMES**

* Perform RCA of reported incidents.
* Utilize simulation outputs.

**CRUDE DISTILLATION UNIT SHUTDOWN/START UP – 2017**

**As PROCESS PANEL OPERATOR/OPERATIONS ENGINEER - ASSIUT, EGYPT**

**JOB RESPONSIBILITIES:**

* Responsible for safe shutdown and safe start up of the CDU .
* Job scope study with planning team.
* Witnessing and supervision off all pre-job inspection activities.
* Conducted daily Tool Box talks for supervisors/technicians regarding job safety, preparation & execution.
* Co-ordination with Maintenance, planning and inspection and other departments for execution of different Jobs as per company procedures.
* Responsible for issue of Work permits: hot work, cold work, working at height.
* Responsible for following up shutdown maintenance activities.
* Ensured that all items of company property while in my possession are treated in a responsible manner.
* Ensuring housekeeping is done once all activities are completed.

**KEY CHALLENGES & OUTCOMES**

* Prioritize Activities according to Operation and safety requirements.
* Clear rising obstacles during unit start up until achieving normal operation.

**SOUR WATER STRIPPER COLUMN INSTALLATION – 2016**

**As MAINTENANCE FIELD COORDINATOR /ENGINEER - SOHAR, OAMN**

**JOB RESPONSIBILITIES:**

* Responsible for proper installation of column trays as Field Engineer/Supervisor.
* Job scope study with planning team.
* Identification of critical measurements and allowances as per manufacturer drawings.
* Witnessing and supervision off all pre-job inspection activities.
* Conducted daily Tool Box talks for supervisors/technicians regarding job safety, preparation & execution.
* Co-ordination with operation, planning and inspection and other departments for execution of Static Jobs as per ORPIC operating procedures.
* Responsible for proper execution of Work permits: hot work, cold work, working at height.
* Undergone training for Permit to work, HAZOP, confined space entry and H2S gas.
* Attended meetings with client for Job planning and progress & safety.
* Imparted Training to the technicians to perform proper installation.
* Ensured that all items of company property while in my possession are treated in a responsible manner.
* Ensuring housekeeping is done once all activities are completed.

**KEY CHALLENGES & OUTCOMES**

* Implementation of installation strategy to maximize column availability & minimize breakdown and to ensure proper operation of the column during start-up.
* Co-ordination with Planning Engineer, Manufacturer Engineer, and Project Engineer to meet completion targets ensuring least deviation from time/quality parameters leading to significant increase in the job progress and quality.

**AROMATICS PLANT SHUTDOWNS/STARTUPS – 2016**

**As MAINTENANCE FIELD COORDINATOR /ENGINEER - SOHAR, OAMN**

**JOB RESPONSIBILITIES:**

* Responsible for supervising part of shutdown maintenance activities within different plant units as Field Engineer/Supervisor.
* Units Covered: Hydrotreatment, Aromizing, CCR, Xylene Preparation, XyMax, TransPlus, Morphylane, Benzene and Toluene Fractionation and Utilities.
* Jobs scope study with planning team day by day to ensure proper progress.
* Coordinate with operations in order to understand the jobs and to get PTW (permit to work) in the targeted locations.
* Operations support during startup to handle emergency raised issues within the plant.
* Conducted daily Tool Box talks for supervisors/technicians regarding job safety, preparation & execution.

**KEY CHALLENGES & OUTCOMES**

* Complete understanding of the Aromatics plant units raised the awareness of each single equipment importance and criticality of each single job.
* Awareness of shutdowns and startups work flow and prediction of possible issues led to proper time and resources management.

**WET GAS SCRUBBER UNIT REVAMP –2015**

**MAINTENANCE FIELD COORDINATOR /ENGINEER - SOHAR, OAMN**

**JOB RESPONSIBILITIES:**

* Responsible for daily supporting and supervising activities as Field Engineer/Supervisor.
* Job scope study with planning, operation and maintenance teams.
* Coordinate with operations in order to get PTW (permit to work) in the targeted locations.
* Participation in the repair of the damaged parts of the unit.
* Supervising removal and reloading of the packing material.
* Conducted daily Tool Box talks for supervisors/technicians regarding job safety, preparation & execution.

**KEY CHALLENGES & OUTCOMES**

* Removal of the damaged packing material required proper and careful handling and direct site supervision.
* The whole job accomplished within time and quality constraints and its startup led to significant decrease in the SOX and NOX emissions from the refinery.

**RESID FLUID CATALYTIC CRACKING UNIT MAINTENANCE – 2015**

**As MAINTENANCE FIELD COORDINATOR /ENGINEER - SOHAR, OAMN**

**JOB RESPONSIBILITIES:**

* Participated in several maintenance activities related to RFCC units’ equipment as Field Engineer/Supervisor.
* Job scope study with planning, operation and maintenance teams.
* Coordinate with operations in order to get PTW (permit to work) in the targeted locations.
* Supervise periodical **Scaffolding** required for the implementation of the critical maintenance activities at elevated locations and confined spaces.
* Participated in supervising removal of coke out of the reactor plenum, pipes and cyclones.
* Participated in supervising orifice chamber inspection.
* Participated in supervising the spent catalyst regeneration system repair and maintenance support including shell and cyclones repair.
* Coordinate between different parties involved in such activities.

**KEY CHALLENGES & OUTCOMES**

* Full-time presence in different locations to supervise directly critical and high risk activities inside the reactor and the regenerator, Achieving Zero LTI (loss time incidence) activities.
* Coordination with several parties involved in such activities to reach and deliver proper information and updates related to work flow, ensuring time, quality and safe activities.