

# MUHAMMAD ABDULLAH KHAN

## CHEMICAL ENGINEER

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### Career Summary

An adept Chemical Engineer with a demonstrated history of 13 years' experience in the Nuclear Power Plant, Petrochemical and Paint industry. Skilled in Process Engineering, Water / Waste Water Treatment, Commissioning, Planning, HSE, Chemist, O&M, Project Coordination, Engineering Design FEED, CAPA and 5S. Strong Engineering professional focused in Heat and Mass transfer, Plant Design. Dedicated, focused Independent and self-motivated professional, excellent analytical and problem-solving skills. Proven ability to identify needs, enhance efficiencies and cut costs.

### Certifications and Trainings

- OSHA
- COSHH
- Plant Access Training (ENEC)
- Behavior Observation Program (ENEC)
- ISO 14001:2015 Training
- Emergency Response
- Environment Awareness
- Health and Safety Orientation (ENEC)
- ISO 9001:2015 Training
- NEBOSH (IGC1, IGC3 Pass, IGC3 pending)

### PROFESSIONAL EXPERIENCE

#### • Process Engineer(Water/Waste Water Treatment)

July,2020– August,2022

**Baraka Nuclear Power Plant.** Ecorbit Engineering, **NAWAH.**  
Abu Dhabi, UAE.

#### Responsibilities:

- Took an active part in commissioning of Demi water treatment plant.
- Operating Demi Water (MF, 1RO, 2RO, MDC, MDI, and MORS) Plant.
- Handling the trouble shooting and suggesting the solutions to management.
- Updating the operational manual on annual basis.
- Operating Waste Water Treatment (Oily Pond, Chemical Pond1 &2, Coagulation & Clarifier Tank Pressure Filters, and Carbon Filters) Plant.
- Monitor variables such as PH, Conductivity, pressure, DO, COD, Temperature.
- Performing the Chemical Batching (Injection) following NAWAH Procedures.
- Evaluating the performance of various process equipment's like Pumps, Heat Exchangers, Condensers, Compressors.
- Sound knowledge and experience on FEED and EPC to find out technical problems.
- Coordinate with operations to conduct Test Runs, test new chemicals and implement changes in plant operations.
- Develop & update plant PFDs, P&IDs.
- Conduct Field walk-downs to identify and analyze corrective and preventive maintenance.
- Identify lock-out/tag-out requirement for maintenance work activities as per LOTO requirements.
- Planning and following-up commissioning activities such as scheduling, preparing and reviewing commissioning test instructions.



#### Key Skills:

- Management Skills.
- Quality Control
- O&M
- Leadership
- Water treatment
- Waste Water Treatment
- Distillation
- Project Coordination
- HSE implementation
- P&ID's and Iso-metric drawings reading and implementation.

#### Projects:

- Commissioning experience of
  - Bio-Ethanol Petrochemical Plant.
  - Demi Water Plant
- Erection & Commissioning experience of
  - CO<sub>2</sub> Plant

- Coordinates Work Execution team and FIN (Fix It Now) Team regarding maintenance and clearance work activities.
- Planning and updating Preventive Maintenance (PM) list.
- Planning and updating Key Performance Indicator (KPI) list.
- Issue AR (Action Request) to FIN team for maintenance work activities.
- Planning work activities on CPP, Auxiliary-System, CCWS System.
- Implement and follow up of HSE regulations (Permit to Work System, HAZAR Identification, Incident Notification and Investigation etc.
- HAZOP studies on process units.
- Making sure that all activities from all disciplines fit in the time schedule, logic tie activities based on operation sequence.
- Attending meetings with management to discuss any potential risks or concerns for their timely Remedial actions, if required.

- **Junior Chemist/Technical Advisor** April, 2017– June, 2020.

#### **National Paints Factories.**

Sharjah, UAE.

#### **Responsibilities:**

- Execution of testing samples of paint production batches and instructing for adjustment if necessary.
- Responsible for production and process support.
- Sound knowledge of Spectrometer, Viscometer, Gel Time, DSC.
- Arranging and updating the stock of chemicals for manufacturing of paint.
- Data acquisition, analysis and study to improve efficiency of existing best practice.
- Monitors the customers special orders and on time delivery.
- Develop and maintain good relations with new and existing customers.
- Technical support to Sales Team to achieve the targets.
- Respond positively on customer's complaints.

- **Senior Process Engineer** February, 2015– April, 2017.

#### **TSML Group of Bio Ethanol Petrochemical Industries , Unit II**

Multan, Pakistan.

#### **Responsibilities:**

- Hands on experience in Plant Control System DCS Honeywell Experiiion C300 PKS R41.
- Daily Monitoring of Fractional & Vacuum Distillation, Fermentation and Bio Gas key parameters.
- Evaluating the performance of various process equipment's like Pumps, Heat Exchangers, Condensers, Compressors, Cooling Towers.
- Hands on experience in Vacuum Distillation, Heat Exchangers, Condensers, Cooling Towers, Utilities section.
- Hands on experience in Water treatment plant.
- Performing the flushing, backwashing and chemical treatment of RO Plant.
- Operating the MDI and MORS and check the parameters.
- Sound knowledge of Membranes types and their uses.
- Takes quotations and negotiate with different companies for purchase of chemicals.
- Making work orders for purchase of chemicals.
- Acting as interface among Technical Services, Laboratory and Operation department of the company.
- Perform lab test of water treatment plant and take corrective actions.

#### **Computer Skills:**

- Microsoft Office
- Windows XP, 7 & 10.
- Hardware problems.
- Drawings and Report making.

#### **Additional Skills:**

- Analytical and organizational skills.
- Written and verbal communication skills.
- Multi-tasking.
- Team work.
- ASME Codes Knowledge.
- Materials / Chemicals procurement and Inspections.
- Project designing.

- Monitor the waste water lab results and ensure its parameters according to Standards approved by Environment protection agency.
- Suggest new Process Design & Process Flow Ideas to avoid the Plant Troubleshooting.
- Planning and performing Plant Shutdown & Start-up of Ethanol (Distillation), Bio Gas and CO<sub>2</sub> plant.
- Monitoring and Controlling of plant operation.
- Hands on experience in water treatment plant.
- Perform laboratory tests such as UV, PH, Hardness, COD, and Strength Test.
- Experience in studying the P&IDs, Process flow Diagrams and MSD's.
- Prepare AR (Action Request) report and daily/weekly maintenance schedule with coordination of other concerned (Mechanical, Electrical, Instrument) departments.
- Prepare and update the JHA, ERA and WMS of the Distillation, Fermentation.
- Assessing safety and environmental issues.
- Issue PTW for any kind of maintenance work.
- Feasibility study of all modification proposals

- **Process/ HSE Engineer** September, 2009– January, 2015.

**TSML Group of Bio Ethanol Petrochemical Industries , Unit I**

Faislabad, Pakistan.

#### **Responsibilities:**

- Monitoring and controlling of Ethanol Plant Operation.
- Hands on Experience in Plant Control System DCS Honeywell Experion C900 PKS R410.
- Performing the Brix test, Filling Alcohol test, UV Test, PPT Test, Alcohol Strength and time test.
- Hands on experience in Water Treatment plant 40 ton/hr.
- Performing the Cooling tower and RO Test of TDS, PH, Hardness, Alkalinity Test, and Chloride Test.
- Responsible for the health and safety measurements in plant and during any kind of maintenance work.
- Supervising the maintenance work.
- Training of all staff to use PPE's for their safety.
- Conduct Tool Box meeting on daily basis before work start.
- Erection and commissioning of CO<sub>2</sub> plant.

## **EDUCATION**

Successfully completed Bachelor's in Chemical Engineering from Dawood University of Engineering & Technology, Karachi in the year 2009 with 1st Division

## **PERSONAL DETAILS**

- Name: Muhammad Abdullah Khan
- Father name: Abid Husasin
- Date of birth: 11.09.1988
- Passport No.: JR4101363
- Marital Status: Married
- Language known : English, Urdu, Hindi