MUHAMMAD HASNAIN

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CAREER OBJECTIVE

A mechanical engineer with several years of experience in thermal power plants. Passionate about technical aspects and ready to explore new opportunities to enhance my skillset and career development.

I have the experience of 7 years in the field of Power Production and Operations. During these years I worked with K-Electric in operations of their 1260 MW power complex and currently working with The Hub Power Company Limited in Commissioning and O&M of their 330MWs coal fired Thal Nova Power Plant.

EXPERIENCE

• The Hub Power Company Limited 330 MW (2022 – present):

1. Shift Engineer:

Working as a Shift Engineer in Coal Fired ThalNova Power Plant with 330 MWs. Key responsibilities include:

- ➤ Managing a team of 20 people that looks after the plant operation. This includes not only managing their work but also their personnel development, training them to be the best versions of themselves. Managing cross functional stakeholders to ensure stable plant operations.
- ➤ Dealing with the plant commercial obligations and external stakeholders management such as owner, energy off taker, fuel supplier, other commodities management to develop best relationships to achieve common goals.
- Ensure grid stability in coordination with the energy off taker.
- Reporting Key Plant performance and efficiency parameters to the top management in a concise and easy to understand manner. This includes presenting data concisely using excel and data visualization tools to highlight key areas of improvement, getting key insights from plant operation data, trending the data and performing trend analysis using excel, python and other data visualization tools.
- > Constantly working to improve plant performance and analyzing data to identify key improvement areas to ensure cost effective and quality generation.
- > Investigating and resolving key system issues to ensure plant operation reliability and efficiently.
- Ensuring that plant runs on LEAN principles such that there is minimum waste to environment. All plant exhaust is properly monitored to meet the environmental regulations by controlling plant emissions such as effluent discharge, Sox, NOx, CO and dust emission levels.
- ➤ Analyzing and finalizing key design changes for process improvement through a proper change management process.
- Managing and overseeing the permit to work system which is a state-of-the-art system as per PSM/OSHA guidelines.
- > Raising defects and perform maintenance jobs using workflow managing software MAXIMO.
- ➤ Coordination and planning of plant schedule outage and keep track of activities to ensure timely return to service.

• K-Electric Bin Qasim Power Plant 840 MW (2016 – 2022) :

2. Manager Operations:

Working as a Manager in BQPS-1 840MW power plant. Key responsibilities include:

- Managing generating units, with combined capacity of 840MWs.
- ➤ Handling two Water Treatment Plants with combined capacity of 160 MT/hour of Demineralized Water.
- ➤ Inventory Management of Heavy Fuel Oil.
- ➤ Lead situations related to Emergency shutdowns and startups of unit independently.
- ➤ Ensuring awareness of Health, Safety & Environment responsibilities to team members and its effective implementation.
- ➤ Planning and managing the allocation of resources to get the best possible quality at the optimum costs to meet the operations targets.
- Ensuring the execution of routine and special operational and process related activities as per SOPs and developing SOPs for the new tasks and non-routine jobs.
- Facilitation in the failure analysis and development of action plan spotting the root causes for continuous improvement.
- Identify the gaps in the required skills of the operations team and rectify by facilitating through a technical training program according to individual job role.
- ➤ Manpower management of team of ~30 members including skill management, leave management, succession planning and career growth.
- ➤ Generating periodic Shift Performance Reports.

3. Deputy Manager (01st November 2019-01st February 2022):

- > In addition to responsibilities of Assistant manager operations lead the shift as stand-in Shift Manager.
- > Skill certification as Senior Authorized Person (SAP) having authority to issue all kinds of work permits.

4. Assistant Manager (30th June 2016 – 01st November 2019):

- Close monitoring of major and critical equipment performance, operating process parameters and effeciency.
- > Following HSE responsibilities and ensuring its compliance by the field staff
- > Coordinating with maintenance personnel to manage maintenance work with safe operation.
- Participation in plant shutdown planning, execution, startup and post startup feedback and analysis.
- Making notifications and implement isolations to safely handover equipment to maintenance department.
- > Communicating the key information between managers, operations staff and maintenance to streamline day to day tasks.

5. Trainee Engineer (30th June 2015 – 29th June 2016):

- Working as a trainee engineer in K-Electric from 30th july 2015 at Bin Qasim Power Plant I with a total generation capacity of 1260MW with six generating units. During training period I am being rotated to operations department, boiler and turbine maintenance department and plant performance department. Key objectives of training include
- Learn the operation procedures of power plant during normal and emergency conditions.
- Learn to perform and follow preventive maintenance schedules.
- Learn to manage and maintain safety procedures and comply with HSEQ policies during operations and maintenance.
- > SAP training to make notification, work orders and other related tasks.

INTERNSHIP

• Pakistan Refinery Limited:

Worked as Intern at Pakistan Refinery Limited for four weeks (June 2013 To July 2013) in maintenance department and was rotated in construction, rotary and stationary sections.

• Pak Arab Refinery Limited (PARCO):

Worked as intern at PAKARAB refinery in maintenance department for a duration of six weeks (18 June 2014 to 26 July 2014). During this period HDD (Horizontal Directional Drilling) projects, pigging sequences were studied. Karachi bypass pipeline installation project of about 18 km was also visited.

SCHOLASTIC:

Bachelors of Engineering (Undergraduate): Bachelors of Engineering from NED University of

Engineering & Technology

C.G.P.A: 3.135 on the scale of 4

Intermediate (Pre-Engineering): Adamjee Government Science College

Marks obtained: 926 out of 1100, 84.2% (1st division, A+ grade)

<u>Matriculation (Science)</u>: Happy Palace Secondary School Marks Obtained: 785 out of 850, 92.4% (1st division, A+ grade)

PROJECTS

• Annual Shutdown of 420MWs Power Generating Units:

Assigned with a task of leading turn around of two 210MWs Power Generating Units simultaneously. Goals of the project were.

- a) Shutting down Unit after Performance test.
- b) Completion of Maintenance activities designed for Annual Shutdown.
- c) Coordination between different Maintenance departments and ensuring timelines followup.
- d) Ensuring Safe equipment handing over and permit issuence.
- e) Ensuring HSEQ standards are being followed during the shutdown.
- f) Implementing approved modifications in firefighting system and cooling water lines of unit.
- g) Testing of Boiler and Turbine protections.
- h) Unit startup and Post shutdown performance test.

PERSONAL QUALITIES

• Interests and Extracurricular Activities

- > Organizer of NED's First Flying Competition
- > Cyber gaming, reading novels, teaching.
- Urdu Poetry
- ➤ Active participation in debates

• Computational and Language Skills:

- ➤ AutoCAD
- ➤ MS-Office
- ➤ Autodesk Inventor Professional
- ➤ Web Front End Frameworks.
- > SAP

- > Fluent in English and Urdu
- ➤ SolidWorks
- Maximo
- Basics of Web Back End Frameworks