

HAMID MAHMOOD

Electrical and Instrument Engineer

Email: engineer.hamid@outlook.com, Mobile# +923015642481 - Pakistan

CAREER OBJECTIVE

I look forward to work in an illustrious company that can avail my skills, technical knowledge, loyalty, passion and innovative thinking for its organizational benefit and endow me with the opportunity to achieve the highest standards of professional excellence.

PROFESSIONAL EXPERIENCE (Total 09 Years)

Assistant Manager Electrical Maintenance, December 2020 – Present Power Plant- DG khan Cement Company Ltd (Nishat Group).

Key Responsibilities:

- Maintenance and Troubleshooting of Plant's Electrical and Instrument systems of Coal fired and Waste Heat Recovery Power plant.
- Led electrical maintenance activities, overseeing a team to ensure uninterrupted operation of critical equipment and systems i.e. Steam turbine, Boilers, Pumps, Fans, Generator, MV/LV switchgears, VFDs, Transformers, Motors, UPS, Control system and Instrumentation.
- Diagnosed complex electrical issues using advanced troubleshooting techniques, minimizing production disruptions and saving costs.
- Implemented predictive and preventive maintenance strategies, resulting to decrease of equipment failures and improved overall efficiency.
- Conducted root cause analyses for major breakdowns, implementing corrective actions to prevent future occurrences.
- Managed the maintenance and calibration of instrumentation and control systems, contributing to accurate process control and data integrity.
- Collaborated with procurement teams to source and procure necessary spare parts, optimizing inventory management and minimizing delays.
- Provided technical expertise during equipment upgrades and installations, ensuring seamless integration and adherence to safety standards.
- Developed and maintained detailed documentation of maintenance activities, contributing to a comprehensive knowledge base for the team.
- Mentored junior engineers, providing training and guidance in electrical maintenance practices and fostering skill development.

Working experience on following Electrical and Instrument equipment:

- Developed and executed comprehensive maintenance schedules, reducing downtime and increasing equipment reliability.
- MV/LV VFDs and Soft Starter (Schneider, ABB, Siemens)
- MV/LV Switchgears (Schneider, Siemens)
- Generator Excitation, Generator protection and Synchronization system (ABB, Siemens, Schneider)
- Allen Bradley RS Logix 5000 (Control Logix), Factory talk HMI Software
- Siemens PCS-7, WINCC
- SCADA System
- Turbine Governor Control system (Woodward 505)
- Steam turbine's control system NT6000
- Protection relays and SCADA system (Schneider, ABB)
- UPS, Emergency DC supply system.
- Motorize and Pneumatic Control Valves
- Bentley Nevada 3500 Vibration Monitoring System of steam turbine

Erection, Commissioning and operation of High Pressure Pulverized Coal fired Power Plant + Waste Heat recovery Power Plant

- Prepare BOQ and project executions.
- Erection and commissioning of all E&I equipment related to Steam turbine, Generator, PC Boiler, FGD, Coal Mills and Air cooled condenser(ACC).
- Installation and commissioning of MV VFDs (Schneider ATV 6000) for feed water pump and ID fan's Motors

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- Installation and commissioning of LV VFDs (ATV 680) and Soft starters
- Installation and commissioning of MV and LV switchgears (Schneider HVX VCBs with pix and Blockset type panels)
- Commissioning and testing of Generator Protection, Transformers protection and Motor Protection relays (ABB REG630, Schneider Easergy P3G32, P3L30, P3T32)
- Commissioning and Installation of Dry type transformers for plant auxiliary equipment
- Point configuration, troubleshooting, logic and communication network study of PLC and SCADA
- Installation, commissioning and calibration of field instrumentation i.e. Pressure, Flow, Level and Temperature Transmitters and switches for steam turbine, boilers and FGD.
- Preparation of emergency power and black shutdown scheme to ensure electrical power for important auxiliary equipment of plant
- Ensure to make decisions related to electrical engineering principles application to operation problems and requirements proposed
- Coordinating with contracting company for handling problems related to E&I
- Engineering & Design related to instrument, electrical and DCS
- Performed FAT/SAT for Electrical equipment

Assistant Manager Maintenance E&I, June 2016 – December 2020 **Power Plant- Kohat Cement Company Ltd.**

Working experience on following Electrical equipment:

- MV switchgear Siemens, Schneider & ABB
- LV switchgear Siemens, Schneider & ABB
- VFDs and Soft starters (Allan Bradley, ABB, Schneider)
- PLC and DCS (Siemens, Allan Bradley)
- Protection Relays (Siemens Siprotec, Schneider Micom)
- MV Current Limiting Reactors
- Intelligent Protection Relays Siemens, Schneider & ABB
- Excitation control system of Generator
- Synchronization control system from Siemens
- Woodward 505 Turbine Governor Control system
- DCS, PLC and SCADA systems
- Liquid and Gas analyzer (ABB, Siemens)

Key Responsibilities:

- Identification, feasibility and implementation of retrofit projects covering both reliability and obsolescence of technology issues.
- Operation, Maintenance and Re instatement of Steam Network Instruments of steam turbine, waste heat and Coal fired boilers
- To look after plant operation and keep Electrical equipment in good condition
- Prepare daily power generation reports of WHR, CFPP and Wartsila power plant.
- To inspect the equipment and analyze the plant's operation on daily basis and assign the tasks for efficient power generation
- Organize jobs to subordinates systematically for smooth operation of the plant
- Electrical network study of entire network for interconnection of new & existing generation and distribution network
- Preventive and Corrective Maintenance plan of Electrical equipment and Field Instrumentation.
- To maintain daily record of Electrical parameters, maintenance history and calibration results
- Installation, commissioning and calibration of electronic and smart Pressure, Flow, Level and Temperature Transmitters and switches
- Inventory Management for critical and non-critical spares to ensure maximum plant availability
- To perform any other duty as assigned by seniors
- Department HSE Coordinator

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Instrument & Control Engineer-Trainee, April 2014 – May 2016 Engro Fertilizers Ltd. – Daharki

Extensive knowledge and Experience of the following Instruments and Control system:

- Honeywell EXPERION PKS (R310.2) with C300 Process Controllers (DCS)
- Honeywell SAFETY MANAGER (ESD)
- Allen Bradley RS Logix 5000 (Control Logix), Factory talk HMI Software
- Siemens Step 7, PCS 7, Win CC HMI Software (S7-400 PLCs)
- Mark VI (Control System Toolbox and other associated software/hardware)
- YOKOGAWA Centum VP (DCS)
- Bentley Nevada 3500 Vibration Monitoring System
- CCC Series 3/3++ Performance Controllers and Anti Surge Controllers
- Smart transmitters of Pressure, flow, level and temperature (Rosemount, E+H, Honeywell and Yokogawa)
- Control valves and its accessories (Dressor Masoneilan, Fisher, Cameron Leeden Orton, Metso, UHDE, Siemens)
- Radial and thrust vibration probes, keyphasor, seismic probes, accelerometer and MPU

Key Responsibilities:

- Maintenance and upkeep of Field Instrumentation; Plant Control Systems and F&G Protection System in the Area of responsibility
- To perform preventive, corrective and break down maintenance activities on instrumentation and control systems in assigned field, covering steam turbines/compressors and its associated control systems, steam generator, pumps, vessels, distributed control system (DCS), Emergency shutdown system (ESD), programmable logic controllers (PLC) and fire and gas control systems.
- Hands-on experience of using computerized maintenance module in SAP/Maximo (preferably SAP) for updating maintenance history of Instruments & control Systems and inventory utilization.
- To perform preventive and corrective on pressure, temperature, level, flow and other measuring and control devices/equipment, protection devices/systems such as vibration and speed.
- To perform modification of control circuits and control loops as per the plant change requests and update all related plant drawings to reflect the actual changes.
- To perform preventive and emergency maintenance on all equipment on site related to instrumentation, as well as during machine scheduled or unscheduled shutdowns.
- To implement and observe the Company's HSE policies and procedures.

EDUCATION

Comsats Institute of Information Technology, Pakistan

Bachelor in Electrical (Electronics) Engineering (July 2013)

Govt. College of Technology, Sargodha

DAE Electronics Technology

SKILLS

Technical Skills:

- Job Analyzing, Planning and its execution
- Process analysis of Coal fired and Waste Heat Recovery power plant
- Installation, maintenance and testing of Medium Voltage/Low Voltage Frequency drive and Soft starter.
- Preventive/Corrective maintenance of MCCs, VCBs, VFDs, Soft starter, UPS, MV/LV Motors, DC system
- Installation Maintenance and Troubleshooting of MV, LV switchgears
- Maintenance/Troubleshooting of Excitation, Synchronization and Protection system of Generator
- maintenance management of Power plants through PM/CM planning in Oracle/SAP and execution
- KPI monitoring
- Failure Mode Effect Analysis (FMEA) and life-cycle studies of Power generation system
- Spares inventory management

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- Work process improvement through Six Sigma PIT projects and work-outs
- SPF studies
- Reliability enhancement through RCA of Electrical system failure
- Installation, Commissioning and testing of protection relays
- PFDs, PIDs, I/O lists, SLDs, specifications, hook-up drawings, loop drawings, junction wiring drawings, cable schedules, logic diagrams, vendors datasheets etc.
- Quality assurance in Maintenance work through Job Plans

Soft Skills:

- willingness to accept responsibility and make decisions
- Leadership
- good communication and interpersonal skills
- creative problem-solving and troubleshooting
- Team Player
- Adaptability

TRAININGS

Independent coursework:

- MAN TURBO Turbine and Compressor Operation & Maintenance by MAN TURBO Germany
- MV VFD ATV6000 Configuration & Maintenance by Scheneider
- Siemens PCS 7, Step 7, WinCC by Siemens Pakistan
- Leadership Development Program by Funverks Global Ltd
- Manager's Tool kit by Narejo HR Services
- FS Elliot Air Compressor's Operation & Maintenance
- Woodward Micronet speed control system
- CCC Series 3/3++ Performance Controllers and Anti Surge Controller Programming & Maintenance
- PSM (Personnel Safety Management)
- Safe Work Practices

Languages

- English
- Urdu
- Punjabi