

102991-MEC-16GHMO-E-2002
Senior Mechanical Warranty & Maintenance Engineer

Holds a B. Sc. in Mechanical Power Engineering and has over 19 years hands-on experience working in maintenance, operation and HVAC design.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 10/08/1980
Gender : Male
Marital Status : Married
Residence : Moqattam, Cairo

EDUCATION

: B. Sc. in Mechanical Power Engineering, Ain Shams University, 2002

LANGUAGES

Arabic : Native Language
English : Good

COMPUTER SKILLS

: Windows, MS Office, Internet
: AutoCAD

TRAINING COURSES AND CERTIFICATIONS

- : Add on conversion to combined cycle maintenance off site training course, Ansaldo Energia Training Center – Genoa – Italy (Oct. 2019).
- : NDT level II for 5 methods (VT, PT, MT, RT, UT), Echo for engineering inspection – Cairo (Feb. 2020).
- : Certified Energy Manager Prep. course (CEM), Association of energy engineers (AEE ® USA – Egypt chapter) (Aug. 2020).
- : Projects Management Professional (PMP) preparation course, Professionals for human resources development Co. (KSA) (2014).
- : Maintenance planning & scheduling, Professionals for human resources development Co. (KSA) (2015).
- : Project Management Foundations, LinkedIn (May 2017).
- : ICDL certificate.
- : Quality Control (for a month), DSD Ferrometalco subsidiary of the German DSD Steel Group GmbH (steel structure, pipe work & pressure vessels Fabrication professional): QC documentation preparation, determining the client specs, getting acquainted with the international cods used and the

- work Technicalities like dimensions check, welding inspection & NDT, Measuring tools and welding types (2006).
- : Intensive course on design & construction of piping systems, AUC (American University in Cairo) (2009).
- : Intensive course on piping stress analysis by CAESAR II, AUC (American University in Cairo) (2010).
- : ASME certificate on ASME B31.1 (power piping design and fabrication), AUC (American University in Cairo) (ASME-AUC joint courses) (2010).
- : Basic course of human development (self-management, leadership, communication skills, mind mapping, planning and self learning), ZEDNY team for human development (2005).
- : Training of trainer and training skills, Ministry of Electricity, Leaders Preparing Center (2011).
- : Training of trainer and training skills, Saudi Electricity Company (2013).

CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Apr. 2019 till now
- Employer** : Cairo Electricity Production Company
- Project** : 900MW 6th October CCPP
- Job title** : Senior Mechanical Warranty & Maintenance Engineer
- Job Description** :
- Working on behalf owner.
 - Performing supervision for warranty period and issuing warranty claims.
 - Preparing protective maintenance plans (PM) for HP, LP FWPs & HRSGs and its auxiliary equipment.
 - Follow up PM and CM work orders.
 - Performing root cause analysis (RCA) for equipment mechanical failures.
 - Preparing bidding specifications for spare parts purchasing requirements and leading mechanical maintenance crew.
 - Achievements:
 - Performing RCA for HP feed water pump balance line high noise and vibration, founding excessive pressure build up due to higher flow rate though the line caused by higher balance drum clearance.
 - Performing RCA for HRSG preheater recirculation pump damage accident, perform complete overhaul for the pump, replacing bearing, coupling and mechanical seal.
 - Performing RCA for HRSG blowdown pipe's elbow failure due to design defect.

- Dates** : From Dec. 2017 till Apr. 2019
- Employer** : Cairo Electricity Production Company
- Project** : 900MW 6th October CCPP
- Job title** : Site Mechanical Engineer
- Job Description** :
- Working on behalf owner.
 - Receiving material as per material certificates, data sheet, drawings & specs according to material receiving request (MRR) issued by the contractor.
 - Review method statement, inspection test plan (ITP) and quality control procedure (QCP) issued by contractor.
 - Reviewing O&M manuals of equipment.

- Follow up construction activities for general supervision.
- Review calibration certificates for testing equipment used.
- Carry out all planned site inspections as per the intervention points marked in the relevant ITP including following inspections:
 - VT, PT & VB and pickling inspection for welds.
 - Bolts tightening torque.
 - Structure verticality.
 - Hydro and pneumatic tests for piping systems.
 - Painting touch up and thickness.
 - Insulation application and thickness.
 - Equipment and skids leveling and positioning.
 - Carbon steel pipe insulation holiday test.
 - Pumps final alignment inspection.
 - HP & LP Feedwater pumps RUN TEST (vibration and temperature).
- Achievements:
 - Participated in inspection activities for 4x280 ton/hr dual pressure HRSG during and after construction for all HRSG systems according to ITP.
 - Follow up, construction supervised and conducted required inspections for 3x1000 m3 storage tanks (demi, service & raw water) and relative distribution systems.
 - Follow up, construction supervised and conducted required inspections for 34 m3/h demi water production plant.
 - Proficiently Follow up, construction supervised and conducted required inspections for firefighting systems (underground, co2 and deluge) covering all project site.
 - Carefully Follow up, construction supervised and conducted required inspections for HVAC systems covering all project site.

Dates : From Aug. 2013 till Aug. 2017

Employer : Saudi Electricity Company (SEC) (Jeddah Training Center)

Job title : Technical Training Instructor

Job Description :

- Training and qualifying of trainees whom nominated for steam Power Plants Operator and power plants mechanical maintenance positions.
- Preparing and developing technical curriculums pacing schedule & lesson plans.
- Reviewing curriculums to provide notes and recommendations for improvement.
- Deriving weekly tests and quizzes to measure trainees progress.
- Specify training materials & equipment required for effective training.
- Study bidders' technical proposals of training materials & equipment to select best training solution.
- Preparing & presenting technical training packages for employees' development short courses.
- Achievements:
 - Collected, arranged & presented training packages for courses: HRSG operation and maintenance, steam turbine operation and control
 - Successfully studied, selected and commissioned training equipment to furnish steam power plant basics lab considering expenses reduction and searched for lowest cost with highest added value alternatives.

- Successfully prepared specs., draw conceptual flow diagram design and studied technical proposals for 22 KW steam power plant training Skid.
- Proficiently applied SEC safety management instructions as a safety representative (additional task):
 - Designed and organized off-job safety online Competition for employees and their families.
 - Designed and published off-job safety propaganda Poster.
- Carefully discovered tens of training syllabus technical & editing errors & provide more than one recommendation for improvement.

Dates : From Aug. 2010 till Aug. 2013

Employer : Cairo Electricity Production Company

Project : Cairo South Power Plant

Job title : Boiler Maintenance Engineer (HRSG & FIRE)

Job Description :

- Following up the execution of the protective & predictive maintenance plans for nine boilers (4x150 ton/hr HRSG & 5x140 ton/hr fire type), making the needed corrective maintenance for the abrupt Breakdown of boiler's burners and rotating equipments like HRSG circulation pumps, oil fired boiler's FD and ID fans.
- Following up necessary repairs of Valves, piping systems & fitting troubles.
- Preparing of overhaul schedule plan for boiler rotating equipments.
- Performing boiler inspections to determine root cause of failures.
- Making the needed inspections and other concerned activities for boiler furnace and pressure parts including Tube thickness Survey, Tube Sampling, Tube leakage, tube replacement & their Welding Non-Destructive Tests in various areas of first pass & second pass, Longitudinal & circumferential joints of boiler drum and riser tubes and headers.
- Preparing periodic maintenance checklist and reports.
- Finally, leading maintenance team work.
- Achievements:
 - Supervised and followed up of 150-ton HRSG HP evaporator tubes (960 total) Replacement.
 - Repaired and reinstalled 150-ton HRSG's diverter (6 ton wt, 6 m height), which was found broken from its hinging points on the pivot shaft and fallen down.

Dates : From Nov. 2010 till Oct. 2012 (part time)

Employer : MEP-LS (Electromechanical and Lighting Design Consultant Office)

Job title : HVAC Design Engineer

Job Description :

- Preparing of design calculations including cooling & heating loads, duct and air terminal devices sizing.
- Selection of HVAC equipments and air distribution terminal devices.
- Preparing of tender and shop drawings using AutoCAD program according to ASHRAE and SMACNA codes & standards specifications.
- Cost estimation and bill of quantities documents developing.
- Project coordination through design process with all office design sections.

Dates : From Jan. 2004 till Aug. 2010
Employer : Cairo Electricity Production Company
Project : Cairo South Power Plant
Job title : Shift Operation Engineer
Job Description :

- Operation supervising of 4 main steam turbines, 2 auxiliary steam turbines, 5 fired heavy fuel steam generators, 3 HRSG, turbines & steam generators auxiliaries, plant switch gear and balance of plant systems and equipment.
- Operation supervising of 66/220KV substation.
- Maximize plant efficiency throughout observing and adapting the setting values of operation parameters, making the needed diagnosis for operation troubles & failures to apply the suitable remedies and finally managing & leading over 20 persons to perform the operation tasks.

Dates : From Feb. 2003 till Aug. 2003
Employer : Misr El-Hegaz Group (ISO certified PVC Pipes factory)
Job title : Junior Maintenance Engineer
Job Description : Following up the execution of the protective & predictive maintenance plans, making the needed solving action for the abrupt mechanical Breakdown and executing the erection & installation of the new machines to be installed at the factory.

Technical Skills:

- Good knowledge and ability of reading of design and manufacturing codes like ASME (power boiler & pressure vessel code), API, NFPA, AHSRAE and SMACNA.
- Ability of reading interpreting P&ID, isometric and other drawings of power plants, Firefighting, Plumbing and HVAC systems.

Field of experience :

- Reviewing engineering specifications, international codes and standards.
- A long experience in operation, maintenance and training of steam power plants, further experience of inspection plus maintenance of steam generators and power plants.
- A variety of experiences in identification and selection of training equipment and designing of HVAC systems.
- Key Skills:
 - Mechanical maintenance.
 - Steam power plant O&M.
 - Troubleshooting.
 - Maintenance planning.
 - Boiler inspection.
 - Welding.
 - Specs review.
 - Site supervision.
 - AutoCAD draughting.
 - HVAC design.
 - VT, PT, MT, UT, RT.