

100292-MEC-16CSVY-E-2014
Mechanical Construction & Piping Engineer

Holds a B. Sc. in Mechanical Power Engineering and has over 6 years experience in the field of Piping Engineering & construction for Power Generation Project, CCPP Projects, fire fighting Oil & Gas.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 10/07/1992
Gender : Male
Marital Status : Married
Residence : Cairo

EDUCATION

: B. Sc. in Mechanical Power Engineering, Menoufia University, 2014

LANGUAGES

Arabic : Native Language
English : Good

COMPUTER SKILLS

: Windows, MS Office, Internet

TRAINING COURSES AND CERTIFICATIONS

- : Piping and pipe lines online and free study course:
 - Piping Components, welding process and pipe supports.
 - Piping drawing (block flow diagram, P&ID, line list, valve list and piping isometric).
 - Piping symbols (fitting, flanges and special items).
 - Piping arrangement (flexibility, pumps, turbine piping and pipe fabrication).
 - Piping work (material work, storing, erection and cleaning).
 - Hydro test and chemical cleaning process.
- : Complete Advanced (HVAC) design chilled Water system for A.H.U, F.C.U, Pipe Lines, Air:
 - Ducts, Chillers, Fans, Pumps and Hap for load estimation, excel for data collection.
 - DX system and how to make selection and installation.
 - Design of chiller system, duct sizing and selection of air handling units.

- : Complete Firefighting Pipe System design, Hydraulic calculations, Firehouse, Pump selection and Gas System (from Apr. 2016 till Jul. 2016).
- : Complete 100 hours in Revit, Design HVAC, firefighting and plumbing projects, Load estimation, duct sizing, shop drawings, energy analysis, piping system, pipe sizing.
- : Complete 100 hours in plumbing, Water Supply System, Sewer Drainage System, Chemical Waste Drainage System and Storm (Rain) Water Drainage System.
- : Word, Excel and Power Point.
- : Petrogulf Misr for extracting and processing oil - oil and gas field (training) (2012, 2013):
 - Dealing with various types of extracting oil pumps and knowing how to fix its faults.
 - Knowing how to process the crude oil in the processing plant.
 - Awareness of processing plant steps and its equipment (heat exchanger, processing pipe line, operating pumps).

CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Dec. 2016 till now
- Employer** : ORASCOM CONSTRUCTION INDUSTRIES
- Project** : New Capital Power Plant Combined Cycle 4800MW has 8 Heat Recovery Steam Generator (HRSG), 4 air Cooling Condenser (ACC), 4 STG and 8 GTG & WTP
- Job title** : Mechanical Construction & Piping Engineer
- Job Description** :
- Senior Construction / Piping Site Engineer in charge of HRSG, ST, GT installation, preparing of preassembly site works, BOP piping, steam turbine, piping erection and fabrication of two blocks (20 & 40) 4 HRSG, 2 GT, 1 ST, 200 Man Power, 84000 DAI INCH, piping large and small bore, 4.000 pipe supports, MTO, BOQ, installing of static and rotating equipment and its operation, technical support, coordinator, reporting, man power estimation, insures welding procedures, Test packages preparation, Hydro test, Reinstatement, punch list, man power mobilization and demobilization, insure quality and safety. Responsible for plot plan, equipment & piping layout Planning of the Main Steam, Hot-reheat, Cold reheat system, Planning of Pipe rack area Piping, tank area like oil storage tank area piping service water storage area piping Cooling tower area Piping, piping layout.
 - Reviewing all drawing and isometrics, P&ID, valve list, BOQ of material, 3D view, isometric view of systems and steel structure drawings before starting erection.
 - Coordination for the qualification of welders, inspection of site as per isometric, GAD and P&ID, fabrication of pipe spool, organize inspection of welding.
 - Distributing system isometrics to piping foremen and supervisors and insure that they are following the drawing during erection.
 - Supervise the installing of HRSG component, lifting of main steel structure and insure following the accepted tolerance of installation.
 - Report to the Piping Discipline Head, the main functions of the role will be to execute designing and drafting activities.
 - Execute the assigned design and drafting activities following the

instructions given by the Area Piping Engineer in accordance with the quality system in force within the Discipline, job requirements, and time schedule.

- Develop Plot plan and Equipment layouts under the supervision and following the instructions of Area Piping Engineer according to the established Technical Work Practices.
- Develop 2D Piping General Arrangement Drawings under the supervision and following the instructions of Area Piping Engineer according to the established Technical Work Practices.
- Develop 3D model based on the study layouts under the supervision and following the instructions of Area Piping Engineer according to the established Technical Work Practices.
- Prepare Isometric sketches for all Stress critical lines with the possible support locations and assist the stress engineer to carry out stress analysis.
- Managed the proper erection of pipes, hangers, and supports in field installations.
- Assist, Remodel and Update the model based on the Internal, Client reviews, latest Supplier information and Isometric checking comments and maintain the clash free model.
- Perform all assigned work to agreed standards for safety, health environment and demonstrate a commitment to attaining high levels of HSE (Health, Safety & Environment) performance.
- Participate in and advice on all design activities and initiatives, including provision of training, inductions and documentation review.
- Verify that all designs are to required standards and that the objectives of the project are met.
- Verify that the works is completed to the agreed schedule.
- Complete erection of piping in pipe racks, HRSG secondary steel, steam turbine building and pump connections.
- Sharing with technical office in making as-built drawing, additional work quotation and solving piping clashes.
- Following progress in area and increasing erection productivity to achieve planned time schedule.
- Indicating the priorities of systems to complete erection according to pre-commissioning dates.
- Making final walk-down on the test packages with piping supervisors according to ISO drawings and P&ID before inspection from the consultant to get the test package release for Test "RFT".
- Closing systems by coordinating Test Packages in areas.
- Lead construction group in area to close punch list, and Q.C notifications according to standard codes.
- Making Re-instatement and closing "B" items in punch list after Hydro-test.
- Following consultant punch items during pre-commissioning till make pipe system under commissioning.
- Coordination on site with other sub-contractors.
- Making general walk down on systems from P&ID, ISO drawings, valve list, line list ...etc.
- Manpower mobilization and demobilization within human resources management requirements.

- Made an overall plan for all pipe lines to make planning and scheduling and Following progress on it.
- Worked with many types of piping materials “Carbon St., St. Steel, Alloy steel and Galvanized carbon St. Lines”.
- Insure work according to WPS special for alloy steel "pre-heating and post weld Heat treatment procedure".
- Making record for hydro-test activities for critical and non-critical systems included in power plant station as (main steam, feed water system, auxiliary steam, Closed Cooling Water, condensate steam systemsetc.).
- Making record for chemical cleaning process for critical and non-critical systems.
- Attend all ccc walk down with client supervisor and closing these items to handover each module to them.
- Reinstatement of the hydrostatic tested lines.
- Punch list clearance and pre-commissioning assistance.
- Commissioning activities:
 - Attend all the systems walk down with the commissioning team.
 - Preparing the cold cooling systems and condensate polishing system for the flushing and making the restoration after finishing it.
 - Preparing the steam systems, feed water system, vacuum drain system, HRSG drain system, fuel gas preheating system and HRSG Lp, IP, HP system for the chemical cleaning and making the restoration after finishing it.
 - Following schedule and indicating priorities in outage work to start the operation.
 - Arranging the pneumatic test and air blowing for the service systems and sampling system.
 - Making all the required for all the system to start the steam blowing process (temporary bypass piping, target plate, piping inspection, pump operation, closed cooling system operation).
 - Awareness of steam blowing steps and how to solve the problems during it, supporting the commissioning team, fixing all the problems happening and expect it.
 - Arranging the outage work after steam blowing and doing it in the scheduled time to start the hot commissioning for the steam turbine.
 - Attend the steam turbine operating to reach the power to grade and starting of the synchronization process and electrical test for the steam turbine.
 - Awareness of the expected problems happening during the operation and finding fast and effective solution to it.
 - Maintenance of valves, pipe lines, pumps, compressors, steam and gas turbine.
 - Commissioning permit to start work and knowing how to isolate lines, pump and skid to start the work.
- Static & Rotating activities:
 - Leveling, axis, pre-alignment and final alignment for most pumps included in Power plant station as (Feed Water, Closed Cooling Water, Service Water Pumps,etc.).

- Installing most types of valves and arrange it for chemical cleaning, hydro test and steam blowing stages.
- Checking the free stress parallelism of the lines connected to the pump as per pump manual.
- Supervision of gas compressors installing and operation.
- Ensuring the flange's bolts torqueing as per manuals.
- Checking the pump first rotation and install its accessories (gauges, heat sensors and oil glasses).
- Awareness of pump maintenance, how to save it during operation, awareness of pump troubles and how to fix it
- Checking the pump cooling if it effect or not before go on operation.

Dates : From Dec. 2014 till Dec. 2016

Projects : New Assiut Power Plants 1000MW

Job title : Construction & Piping Site Engineer

Job Description :

- Execute underground piping, water piping, firefighting line, plumbing piping, drainage piping for the plant and it's hydro testing according to ASME standards, execute all utilities piping for the plant and its hydro testing coordination with vendors and other departments & welders, Preparation of pipe line drawing and well experience in reading pipeline drawing and erection of prefabricated spools. Calculating material take off from ISO drawing and documentation, Responsible for plot plan, equipment & piping layout Planning of the Main Steam, Hot-reheat, Cold reheat system, Planning of Pipe rack area Piping, tank area like oil storage tank area piping service water storage area piping Cooling tower area Piping, piping layout.
- Following progress in area and increasing erection productivity to achieve planned time schedule.
- Provide technical and engineering leadership in monitoring and evaluating steam power plant O&M data to confirm plant performance meets established standards, operating goals, permits, and contracts and to identify improvement opportunities.
- Reviewing piping isometric & support drawing and details.
- Prepare weld mapping of isometric drawing and dimension check of completed spools. Maintain housekeeping and proper arrangement of spools in lay down yard.
- Supervise activities inclusive of fabrication, Installation of piping and structural installation, hydro testing and commissioning works.
- Prepare all installation and selection documents for all mechanical equipment.
- Collaborate with team of designers to complete all mechanical capital projects and provide all engineering support.
- Prepare and design all construction bid documents.
- Provide support to all expense projects and maintain accuracy in all piping project and ensure compliance to all piping material specifications and maintain knowledge on all orders.
- Analyze all mechanical designs and prepare various concepts for piping designs and develop required mechanical drawings.
- Provide support to all purchase activities and evaluate all vendor submittals.

- Inspect all mechanical equipment and analyze all equipment and ensure adherence to all present technology.
- Provide assistance to all senior engineers and recommend improvements to all design and travel to site to analyze all equipment and maintain efficient relation with all plant personnel.
- Assist to make arrangements for all business trips for various departmental tasks and design all technical specifications and assist to procure and fabricate all materials.
- Coordinate with various teams to administer all assignments.
- Provide appropriate solutions for all parties and evaluate and analyze all client requirements and design all piping specifications for clients and recommend appropriate alternatives.
- Interpret all codes and maintain overall performance of all piping activities.
- Provide support to all CADD functions and develop and maintain all activities according to project schedule and prepare appropriate forecasts.
- Develop new methods to recommend improvements to all activities of piping section.
- Coordination for the qualification of welders, inspection of site as per isometric, GAD and P&ID, fabrication of pipe spool, organize inspection of welding.
- Reinstatement of the hydrostatic tested lines.
- Punch list clearance and pre-commissioning assistance.

Field of experience :

- Construction and maintenance of industrial field power plants, operation of static and rotating equipment and maintenance of petrochemical equipment.
- Have been working as a Mechanical Piping and Construction Engineer in several Companies that working in installation of combined power plants (HRSG, ST, GT, ACC, BOP), Fabrication and erection of pipelines, steel Structure and install static and rotating equipment during construction, pre-commissioning, commissioning, punch list phase and maintenance works.
- Working as Punch List Coordinator during the projects different phases to handover the plants to the different stage of operation (test package, chemical cleaning, steam blow, first steam).
- Achievements:
 - Working within about 5 nationalities & 1000 man-powers that improve the communication skills.
 - 3 million man-hours safely work within an IIF environment.
 - Commissioning permit to start work (PTSW) training from Siemens.
 - Commissioning phase awareness.
 - Recognized and awarded for excellent plan and execution of the project scope within safely environment.