***SAFDAR SHAH, P.Eng, M.Eng***

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**Dhahran**

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***OBJECTIVE:*** Seeking a challenging position which will utilize my **Project Management** skills, *Knowledge and Experience Capabilities.*

***PROFESSIONAL SKILLS***

* 20 years of Experience in Project Management and Plant Construction (EPC) in the Oil process refinery/upgrading plant area and Petrochemical Industry.
* Experience includes EPC activities related to stationary equipment (Pressure Vessels, Tanks, Columns, and attached piping, etc.) as well as rotary equipment (Pump, Compressors, Fans, Blowers, etc.) for multi-million dollar projects.
* Performed project management and field construction responsibilities including budget planning, contract strategies, purchasing materials and selecting/supervising contractors.
* Coordinate/Participate in Project Risk Management Workshop, Lesson Learned Session, Team Alignment Session, HAZOP, and RAM Study as on need basis.
* Expertise include design analysis, P&IDs, equipment specifications, material requisitions, work packages, contract documentation, bid package preparation, bid evaluation, vendor technical packages, installation details, construction support, line designation tables, material procurement, detailed engineering, project management and construction for oil process refinery/upgrading Plant.
* Reviewed, selected and approved mechanical specifications for processing equipment, pressure vessels, Storage Tanks, Heat Exchanger, Pumps and Piping.
* Coordinate/Participate in Project Risk Management Workshop, Lesson Learned Session, Team Alignment Session, HAZOP, and RAM Study as on need basis.
* Performed the Piping Stress Analysis by using the CAESAR II.
* Performed the Pipe Flow Analysis and calculated the NPSH by using the software AFT Fathom 7.0.
* Familiarity with codes: ASME B73.1, B73.2, B 31.3, ASME Section VIII Div. I, API 650, API 610 and API 620.
* Proficient in preparation of Technical Data sheets of both Static & Rotating equipment according to the code.
* Team player with the ability to work independently; proven ability to multitask and meet specified time frame.
* Masters degree in  Engineering from Wayne State University, Detroit, MI, USA

***PROFESSIONAL EXPERIENCE***

**Project Manager, SEPCO Arabia Ltd Kingdom of Saudi Arabia**(Dec 2020 -Present)

**Project:**

King Salman International Complex For Maritime Industries And Services Project Package 4,5,6/ Maritime Yard Project (MYP)

* Performed project management and field construction responsibilities including budget planning, contract strategies, purchasing materials and selecting/supervising sub-contractors.
* Reviewed, selected and approved mechanical specifications for processing equipment, Bridge Cranes, Goliath Cranes, CNC Machines etc.
* Coordinate/Participate in Project Risk Management Workshop, Lesson Learned Session, Team Alignment Session, HAZOP, and RAM Study as on need basis.
* Responsible for planning, organizing, and directing the completion of project on time, on budget, and within scope.
* Coordinate with SAPMT and manage the sub-contractors on each step of the project.
* Provide the Progress of the project to SAPMT weekly basis.

**Project Engineer, Saudi Aramco - Saudi Arabia** (23 Sept 2014 -27 Sept 2020)

* Review and comment on the contractor scope of work along with technical data sheets & drawings.
* Coordination with POD, FPD, PMT and Operation departments.
* Initiate the new project and enter into the system.
* Prepare the monthly highlights and attend the meetings.
* Completes engineering projects by organizing and controlling project elements.
* Develops project objectives by reviewing project proposals and plans and conferring with management
* Determines project responsibilities by identifying project phases and elements, assigning personnel to phases and elements, and reviewing bids from contractors.
* Determines project specifications by studying product design, customer requirements, and performance standards.
* Determines project schedule by studying project plan and specifications, calculating time requirements, and sequencing project elements.
* Maintains project schedule by monitoring project progress, coordinating activities, and resolving problems.
* Controls project plan by reviewing design, specifications, and plan, scheduling changes, and recommending actions.
* Maintains safe and clean working environment by enforcing procedures, rules, and regulations.
* Contributes to team effort by accomplishing related results as needed.
* Coordinate/Participate in Project Risk Management Workshop, Lesson Learned Session, Team Alignment Session, HAZOP, and RAM Study as on need basis.
* Coordinate and Participate in DBSP, Project Proposals and Detail Design Reviews.
* Act as Operations Team Rep to coordinate review of tie-in Packages, cutover Plans etc. required to support the project management Team construction activities.
* Provide support in Pre-commissioning/Commissioning activities.

**Projects:**

**BI-10-1579 “ Upgrade Desalination Water Treatment Plant” Safaniyah**

**BI-10-1429 “ Additional Trap Compressor - Safaniyah”**

**BI-10-2186 “ Khafji/ Tanajib Gas Compression and Handling Facilities”**

**Sr. Mechanical Engineer, CH2M HILL Energy& Chemicals, Calgary, AB**: (March 2012- Sep 2014)

**Project:**

**QUSAHWIRA PHASE II DEVELOPMENT- ADCO**

Qusahwira Phase II is a new field located about 80 Km Southeast of existing Asab oil field and

Approximately 200 km south-southeast of Abu Dhabi city.

Phase-II facilities will be distributed between the wellpads, gathering stations, and existing

Facilities at CDS and GS-1

Each drilling pad will have a combination of oil producers and injectors spaced 60m from

each other. Chemical injection and solar/OHL power shall be provided on each well pads.

Following are the associated facilities involved in each well pad and gathering station:

• Oil and WAG injectors well heads & associated piping

• Manifolds (For Gas Lift, WI, GI and Oil Production)

• Chemical Injection Skid

• Solar Panels/OHL

• N2 Cylinders on PADs

Each gathering station shall be equipped with a production header to gather the gross

Production from a set of wellpads through non-piggable flowlines from the pads.

Following are the associated facilities involved in each of the gathering stations:

• Production Headers (OIL, GL, GI & WI)

• Multiphase meters

• Chemical Injection skids

• Flare and Closed Drain System

• Potable Water System

**Suncor Oil Sands Inc. - Fort Hills:**

•The Fort Hills - Phase 1 Camp and Infrastructure Project includes engineering, procurement, and construction of the following facilities: raw water intake, potable water treatment plant and potable/fire water distribution, sanitary wastewater collection and transfer, and a wastewater treatment plant (WWTP) for camp facilities for Suncor Oil Sands Inc. in the mining and bitumen production site, Fort Hills lease area, and is close to the east bank of Athabasca River, within the regional municipality of Wood Buffalo, approximately 90 km north of Fort McMurray, Alberta.

**Sr. Project Engineer, CH2M HILL Energy& Chemicals @ FMC Plant Green River WY USA:**

**(**Nov 2011- 2012)

**Projects**:

**Upgrade Mono/ELDM Purge System:**

* The main objective is to increase the capacity of the Mono evaporator purge system by 100 GPM to provide the Mono plant additional solution feed processing capability to regain full nameplate capacity of 1.55 MTPY.

 Further to the objectives above, this part of the project will include the replacement of the existing purge pumps with new pumps rated for low NPSH and upgrade the purge liquor transfer system by replacing the 4” line to ELDM with a 6” line.

**Dual Dissolver Overflow Piping:**

* In this project to provide the 4 new pumps by extending the building and providing all the piping from dissolvers to clarifiers including all the flanges and piping supports.

**Dual Acid Wash System Piping:**

* This project consists of 12” CS pipe from Pump house to Tank with all the piping support, flanges, Tees and knife Gate valve hydraulically operated.

**Sr. Mechanical Engineer, CH2M HILL Energy& Chemicals Houston, Texas USA: (**2010- 2011)

**Projects:**

**Research Triangle Institute International (RTI):**

* Project consists of a Pre-commercial system that is designed to demonstrate RTI’s warm syngas desulfurization process, carbon capture and sequestration. The pre-commercial system is designed to process a slip stream of 1.5 MMSCFH (dry basis), of sour syngas.

**Valero Texas Panhandle Gathering System:**

* Project consists of a pipeline system that will transport crude oil from the Perryton Station, approximately 70 miles, to the McKee station.  This pipeline has two intermediate sites, Farnsworth / Waka (Waka) and Clawson Stations.

**Valero Lucas Pipeline Expansion Project:**

* The project include installation of a new 13-mile pipeline between the Lucas Terminal and the Port Arthur Refinery; installation of new manifold piping, pump skids, meter facility, and a pig launcher at the Lucas Terminal; and installation of a new pig receiver, a meter facility, and a run of above-ground piping to an area near the existing crude charge pumps at the Port Arthur Refinery.

**Sr.Mechanical Engineer, CH2M HILL Energy& Chemicals, Calgary, AB:** (2006- 2010)

**British Petroleum Noel Gas Project-**Project consists of well sites, gathering system, separation, compression and dehydration facilities to develop a capacity of 124 mmcfd of gas production.

 **Suncor Oil Sands Inc- Fort Hills**- Project consists of water treatments plant with piping, pumps and Tanks.

**Vankor Oil Field**- Project Consists of Pumping Stations (PS0, PS1&PS2) and Tie-in Facility of 632 Km Pipeline.

**Responsibilities @CH2MHILL:**

* Primary responsibilities and activities are related to all aspects of engineering design for process, utility and auxiliary equipment both stationary & rotary equipment.
* Responsible for completing the piping and mechanical design for the Project as detailed in the DBM and PEP along with the research and/or verification of all relevant data and drawings for determining all new design parameters necessary for procurement and construction.
* Sizing, selection, evaluation and preparation of equipment specifications, data sheets, drawings, RFQ’s & RFP’s related to stationery, rotary equipment and Piping.
* Calculations for pump NPSH and piping pressure/head loss.
* Performed the Piping Stress Analysis by using the CAESAR II.
* Performed the Pipe Flow Analysis and calculated the NPSH by using the software AFT Fathom 7.0.
* Evaluation of technical bids from vendors & recommendations for purchase.
* Reviewing and approving vendor and in-house design & drawing to ensure compliance with applicable codes, specifications, industry guidelines & standards.
* HAZOP & constructability reviews for the design and to ensure all identified issues are addressed.
* Coordinate with clients, discipline engineering counterparts and vendors at all phases of engineering in developing execution and design verification plans.
* Performed value-engineering studies based on site visits.
* Engineering support during the construction phase of the project including startup & commissioning.
* Handling change orders for approval.
* Discipline man-hour estimation and costing for new projects.
* Provide AFE estimates for materials and labor for each segment of assigned work tasks breakdown in the project database.
* Provide Project scope of work (SOW) documents for construction.
* Provide the construction support for the Projects.

**Senior Mechanical Engineer, DDFC (PVT) LTD, (PAKISTAN)**                   (March 2003 - July 2006)

(DDFC is an EPCC Company (ISO-9001-2001certified) providing services to Oil & Gas, Petrochemical and Power Companies etc.)

**Responsibilities:**

* Designed, Specified and coordinated for mechanical equipment especially Pumps, Pressure Vessels,  and Storage Tanks  as per ANSI/API 610,ASME Section VIII Div I, API 650 and API 12F.
* Preparation of RFQ packages and Equipments Technical Data Sheets.
* Responsible to performing technical bid evaluation; Review of Vendor drawings, and design calculations
* Review of Design packages/technical proposals for Pumps, Pressure vessels, storage tanks and Heat Exchangers.
* Coordination with Engineering Discipline leads, clients, vendors and project management team on different technical/Engineering issues like design, fabrication and erection and testing commissioning
* Prepared the mechanical equipment installation procedures and instructions
* Supported the site/construction teams.
* Prepared Construction Work Package for equipment.

**Mechanical Engineer, PETROSIN (Pakistan)**                                               (July1995– August 2000)

PETROSIN is an ISO 9001 multinational EPCM company providing services to Oil & Gas, Power, Petrochemical, and Chemical industries.

**Responsibilities:**

* Development of data sheets and procurement specifications for both Static & rotary equipment.
* Designing, Specifying and coordination for mechanical equipment especially Dehydration unit, pressure vessels, Tanks, Heat Exchangers and Pumps as per ASME Section VIII Div I, API 610, API 650,and API /12F.
* Preparation of RFQ packages and Equipments Technical Data Sheets.
* Responsible to performing technical bid evaluation; Review of Vendor drawings, and design calculations
* Review of Design packages/technical proposals for Pumps, Compressors, Pressure vessels, storage tanks and Heat Exchangers.
* Coordination with Engineering Discipline leads, clients, vendors and project management team on different technical/Engineering issues like design, fabrication and erection and testing commissioning
* Prepared the mechanical equipment installation procedures and instructions.
* Preparation of Construction and Engineering Work Packages (CWP & EWP).
* Involved in risk assessment and technical decisions required during the construction phase for technical issues. This includes coordination with clients and other affected disciplines for implementation.
* Responsible for submission of drawings and calculations to ASME Authorized Inspector (AI).
* Involved in the Hydro testing, Pre-commissioning and commissioning for equipment and piping.
* Involved in raising Non Conformance Reports (NCR) and Specification Deviation and coordinated with clients to get it approved for IFC.

***EDUCATION***

**Master In Engineering, WSU, Michigan (USA):** **(Jan 2001- Feb 2003)**

**B.Sc., Mechanical Engineering**, **(Sept 1990-May 1995)**

**University of Engineering & Technology Lahore, Pakistan**.

**P.Eng Status: P.Eng (M94136)**

**CITIZENSHIP: CANADA**

***COMPUTER SKILLS***

**CAESAR II, AFT FATHOM 7.0 COMPRESS, Minitab, Pro-E, MS Word, MS office, MS Projects**

***(References and educational documents available on request)***