

Armandt Oosthuizen

PROCESS ENGINEER

I am a hard working and very detail oriented process engineer that enjoys all sections of the oil and gas industry. I take pride in what I do and how I execute the job that I am assigned to. I am concentrated on improving my skills and am always open to learn. I enjoy facilitating and supporting the collaboration and considerations required between the different disciplines to successfully execute a project. The commissioning of complex systems are among my interests and I tend to pursue opportunities where my knowledge and skills can be tested.

Skills

ASPEN	••••
Microsoft Excel	••••
Microsoft Word	••••
HYSYS	••••
AFT Fathom	• • • • •
AFT Arrow	$\bullet \bullet \bullet \bullet \bullet$
Afrikaans	•••
Enalish	

Education History

UNIVERSITY OF PRETORIA (2015 - 2019)

Bachelor in Chemical Engineering, 2019 (Golden Key)

DIE HOËRSKOOL WONDERBOOM

Grade 12 with Physical Science (82%), Mathematics (82%) and Accounting. Other distinctions in English (87%) and Life Orientation (81%).

References

Carinee Naicker (Process Engineer) 084 876 4924 SJ Bergh (Electrical Engineer) 083 273 5764 Jandri Ribberink (Process Engineer) 081 475 1243

Contact



ajoost96@gmail.com



079 993 6727

8..... 9604275025088

Tetra4 - LNG/LHe Balance of Plant (BOP)

Designation: Junior Process Engineer at EPCM Holdings

Project Duration: February 2020 - September 2020

Project Type: Detailed Engineering, Procurement and Construction

Background: EPCM Holdings was responsible for the balance of plant for the Renergen LNG/LHe plant in Virginia, Freestate, South Africa.

Responsibilities: I was responsible (with the assistance of another junior process engineer) for the basic design, engineering and procurement of the supporting utilities (instrument air unit, nitrogen unit, conduction oil, demineralised water and cooling water system) for the LNG/LHe Plant. I developed detailed process documents such as the Basis of Design, Process Description, Control Philosophy, Hydraulic Analysis reports using AFT Arrow and AFT Fathom, Specification Sheets for the respective utility packages, Chemicals and Catalyst Handling Report, RAT List and Cause and Effect Diagram, as well as process drawings (PFDs and P&IDs).

Saldehco Tank Farm

Designation: Junior Process Engineer at EPCM Holdings

Project Duration: June 2019 - September 2020

Project Type: FEED Study

Background: EPCM Bonisana consulted on the basic design of a fuel storage, bunkering and distribution facility off the coast of Saldanha, South Africa. The terminal was designed to receive, store and distribute four products namely Intermediate Fuel Oil (IFO), Gasoline, Gasoil and Base Oil (BO).

Responsibilities: I was responsible for developing the general operation of the facility. I also developed the Control Philosophy that included a metering facility, tanks and pump stations for each product. Supporting documents such as the RAT List and the Cause and Effect were also completed. The hydraulic study for the pipelines was done using fundamental equations. In addition to the reports, I also developed the P&IDs.

Energy Group - HPCMS

Designation: Process Engineer and Commissioning Engineer for EPCM Holdings

Duration: March 2020 - February 2022

Project Type: Detailed Engineering, Procurement and Construction

Background: EPCM Bonisana was contracted by Energy Group to carry out the detailed engineering, procurement and construction works, including commissioning, testing and handover for High-Pressure Customer Metering Stations (HPCMS) and underground pipelines at Clayville, Wadeville and Nigel, to supply Natural Gas from Sasol to the respective Consol plants.

Responsibilities: I was responsible for the sizing of relief valves and the hydraulic simulations of the gas passing through the HPCMS. I also assisted with the development of the Process Description report and the Control Philosophy. At the conclusion of the project I was responsible for the commissioning of two of the three plants. I was the Commissioning Engineer at the Wadeville site, and Commissioning Manager at the Nigel site. This included completing all the pre-commissioning tests and successfully completing all the performance tests set out by the client's engineer.

UNOPS (G4G) - Natural Gas Transmission Line

Designation: Lead Process Engineer at EPCM Holdings

Duration: February 2021 - January 2023

Project Type: FEED Study followed by Detailed Engineering Design

Background: EPCM Holdings was contracted for the detailed design of the G4G pipeline by the United Nations Office for Project Services (UNOPS) on behalf of the Client, the Office of the Quartet (OQ), in support of the Palestinian Energy and Natural Resources Authority (PENRA). The pipeline will transport natural gas from a tie-in located on the Gaza-Israel border to the GPP.

Responsibilities: I am responsible for reviewing and also writing the process documents that include the Control Philosophy, Process Description, the RAT List, Cause and Effect and the Hydraulic analysis and report. I also developed the PFDs and the P&IDs. This is quite a challenging project, and a lot of rework is continuously required as a result of the well known political climate in the region. Consequently, the design has changed quite a lot and other factors need to be considered in order to accommodate all the stakeholder's requirement.

Senegal Minergy Port (SMP) - Onshore Pipelines

Designation: Lead Process Engineer at EPCM Holdings

Duration: November 2021 - May 2022

Project Type: Detailed Engineering Design

Background: As part of the development of Bargny-Sendou port, the aim of the project was to design an import-export facility for bulk hydrocarbons (Gas Oil, Fuel Oil, Petrol, Jet A1 and LPG) in Bargny-Sendou. The design of the facility was split up into the wet bulk berth, four pipelines running across the jetty and the distribution manifold to the four tank farms.

Responsibilities: I was responsible for the detailed design of the four pipelines and all associated equipment. The client wanted a simple and cost effective facility; therefore, the number of pipelines were reduced from five (from the FEED study completed by another consulting company) to four. The one pipeline was designed as a multi-product pipeline transporting Gas Oil, Jet A1 and Petrol with the option of batch pigging. The interface calculations did show that batch pigging isn't necessarily required and will be used at the discretion of the pipeline operators. Similar to the other consulting projects, I was responsible for the developing the process documents. The challenges with this project was that the client had very little information on the imports and exports in terms of the volumes being traded or the frequency of the arriving ships. As a result, I had to use information from one of the importing/exporting facilities that is also in the region. Therefore, a logistical study was completed in addition to the hydraulic analysis in order to design a flexible system that could accommodate several scenarios of import/export procedures. I also developed the Operating Manual and the Commissioning Procedure for the pipeline.

CPMZ - Pump Station Upgrade

Designation: Process Engineer, Site Engineer and Commissioning Manager at EPCM Holdings

Duration: November 2021 - March 2023

Project Type: Detailed Design, Procurement and Construction

Background: EPCM Holdings has been contracted by the Companhia do Pipeline Moçambique Zimbabwe (CPMZ) to complete the design, procurement and construction of a pump stations at both Beira and Maforga. The main drive behind the pump station project is to increase the overall throughput of the pipeline. This can be achieved by upgrading the pump stations in order to make use of new technology pumps. The line will be used to transport Diesel, Petrol and Jet A1. In addition, semi-automatic bath pigging will be performed in order to mitigate the interface.

Responsibilities: I joined the project at a later stage when most of the engineering at Beira and Maforga have been completed. I was responsible for the control logic with regards to the timing and sequence of the hydraulic pins used to release the batch pigs. I was responsible for the design of the upgrades at the Feruka receiving station. This includes the design and procurement of a pressure control valve, surge protection and an updated control philosophy. From March 2022 I had taken over the responsibilities of Site Engineer for the final stages of the project. The responsibilities include, but is not limited to, the procurement of electrical and instrument cable, cable glands and reducers and any other day-to-day consumables. This includes the management of materials and the workforce between the two sites to ensure that the progress is as efficient as possible and that the items critical to commissioning take priority. From a technical point of view, I was responsible for the development of loop and wiring diagrams. I was also responsible for solving problems on site and filling any gaps or uncertainties in the design. In addition, I completed the pre-commissioning activities, such as valve testing and I/O testing for the Maforga pump station.

PZL/NOIC - Adequate Pump Studies

Designation: Process Engineer at EPCM Holdings **Duration**: March 2022 - May 2022

Project Type: Technical Adequacy Study

Background: EPCM Holdings has been contracted by the Petrozim Line (PZL) to evaluate the inlet piping to two tank farms, one in Feruka and one in Harare, Zimbabwe, as well as the breather valves. This project ties into the one discussed above. The tank farms are downstream of the Feruka receiving station (from CPMZ).

Responsibilities: I was responsible for evaluating the size of the inlet pipeline using the outlet pressure and flow rates from the Feruka station as basis. Therefore, I completed a hydraulic study. In addition, I had sized diffusers to reduce the inlet velocities to the Petrol tanks, specifically, and had also sized the breather valves to evaluate whether the existing valves will be able to handle the increased flow from CPMZ.

Sasol - Biosludge

Designation: Project Engineer at Wood PLCDuration: March 2023 - CurrentProject Type: Detailed Design and EPC

Background: The aim of the project is to reroute and divert the waste activated sludge generated by the water recovery facilities at the Secunda SASOL plant, from the incinerators to the gasifiers. In order to accomplish this, the waste activated sludge is routed through a thermal hydrolysis package to improve the rheological properties and eliminate the pathogens found in the waste activated sludge. The motivation behind this project is to comply with Section 21 of the National Environmental Management Air Quality Act (NEM: AQA).

Responsibilities: I am responsible for the overall 3D model. This includes constant inter-discipline sessions in order to reduce misalignment between disciplines and between the engineering and the design (or draughting) teams. I am responsible for facilitating the model reviews (both internal and external). In addition, the mechanical flow diagrams (MFD) is my responsibility, since they need to align with the 3D model. This position has been a lot less technical, but more managerial and coordination based.