JOHNSTON VERE
GLOBAL RECRUITMENT

Candidate: **Rudie Minnie**

PERSONAL DETAILS

Location: USA - Texas

QUALIFICATIONS

M-Tech Degree Chemical Engineering - University of South Africa– School of Engineering,
National Higher Diploma Chemical Engineering - Vaal Triangle Technical University (1988)

CAREER SUMMARY

Sept 2019 – Present GTL America
Position: Engineering Manager
Engineering Manager at the GTLA in Little Rock Arkansas US with the following main activities:
Engineering Manager responsible for establishing, developing and managing a process and commissioning engineering team as part of a newly formed task team in Rome (Technip) responsible for licensing and engineering activities on Gas-to-Liquid (GTL) project and studies. Duties include

- Review technical proposals including process engineering scope definition, execution plans and schedules.
- Management of project execution issues including recruitment and training of staff, productivity and technical quality.
- Provide technical expertise and guidance in GTL technology areas, conceptual design and front end engineering design execution strategy.
- Develop overall commission schedule for the entire GTL Complex
- Developed a daily and hourly Cold start plan for the entire Complex for a Cold and Hot start. Cold start occurs after the bi-annual statutory shutdown of the Complex and a Hot start after an entire Complex has tripped.
- Develop controlled start-up and shutdown procedures for the entire GTL Complex.
- Develop Capex of the Catalyst and Chemical consumption for the entire GTL Complex
- Reviewed/developed the Operating Air and Water and flaring permit for the GTL Complex to comply to Arkansas Environmental permit.
- Developed a 10 year Turnaround Maintenance philosophy for the GTL Complex.
- Developed a staggered Statutory Turnaround philosophy for the GTL Complex including production loss incurred during the 60-day Bi-annual Turnaround period.
- Developed the NG, Steam & Power requirements for the 12 month initial start-up period of the GTL Complex.

Aug 2018 – Jul 2019 SGCE
Position: Technical Director (Syngas and Refining)
Technical Director at the Juniper GTL Complex in Lake Charles USA with the following main activities:

- Physical check-out of all equipment to ensure process integrity and overlook the refractory rebuild of the SMR, WHB and transfer line.
- Review Cat loading procedures for SMR, FT and Gas clean up reactors i.e. Desulphuriser and Hydrogenator and LT Shift reactors, inspect furnaces, vessels, pumps and compressors and all refractory lined equipment on SMR.
- Developed Unit specific mass balance programs by utilising PI and LIMS network.
- Develop all start-up, shutdown and emergency shutdown procedures and conduct classroom training for all Operating personnel.
- Develop controlled start-up and shutdown procedures for the entire gas-loop which consist of a 120 tube SMR, MEA unit, Membrane unit, Syngas compressor to FT reactors and re-circulate the un-converted FT tail gas back to the front end of the SMR

2013 – Aug 2018 Haldor Topsoe
Position: Principal Process Engineer
Commissioning Engineer at Escravos GTL Complex in Nigeria with the following main activities:

- Physical check-out of all equipment to ensure process integrity. i.e. Cat loading of ATR, Desulphuriser and Pre-reformer reactors, inspect furnaces, vessels, pumps and compressors and refractory lined WHB's and ATR's.
- Developed mass balance programs by utilising PI and LIMS network.
- Conducted/co-ordinated all performance and demonstration test runs in collaboration with the owner (Chevron). Combined dry syngas capacity for the two ATR trains is 1 100 000 nm3/h (985 MMSCFD).
- Review start-up, shutdown and emergency shutdown procedures and train DCS Panel operators.
- Direct and guide Operations personnel during the commissioning phase of the two ATR trains that consist of a Desulphurisation, Hydrogenation, Pre-reformer and Oxygen blown ATR reactors, WHB and common cool-down section (Topsoe Licence).
- Technical support from RSA for Escravos, Sasol, PetroSA, Sonatrach Urea -Algeria, Samur Urea - Malaysia. (Jan 2016 onwards)
- Carried out several 2 to 3-week Performance and Acceptance test runs on 2200 MTPD Ammonia plants in Malaysia, Algeria and Iran.

2008 – 2013 Compact GTL
Position: Operations Manager
Operations Manager - Compact GTL in Oxford UK. Main activities consisted of the following:

- Manage and co-ordinate the commercialisation of Compact Steam Methane Reforming (SMR) and Compact Low Temperature Fischer Tropsch (LTFT) processes.
- Co-ordinate Guard bed, SMR and LTFT catalyst screening activities in the Abingdon Laboratory.
- Co-ordinate performance test runs of the SMR and LTFT processes in the UK pilot plant in Wilton-Newcastle.
- Liaise with the Engineering and Construction Company, responsible for the design of the Petrobras Semi commercial GTL Pilot plant.
- Successfully commissioned and operate a fully integrated Semi-commercial GTL for Petrobras in Brazil from Aug 2010 – March 2012.
- Achieved technology approval for commercialisation from Petrobras for this FPSO GTL design.

2006 – 2007 Sasol – ORYX
Position: Chief Process Engineer
Chief Process Engineer - SPL Sasol Synfuels International, the Single Point Licensor for ORYX GTL plant in Qatar. Main activities consisted of the following:

- Co-ordinate all Licensor commissioning issues between ORYX (the Owner) and Technip (Engineering contractor) for the GTL complex.
- Conduct performance and acceptance test runs for the two ATR trains (Topsoe) and Hydrocracker (Chevron).
- Team member in successfully commissioning and optimise the Gasloop of the entire ORYX GTL Complex. Combined dry syngas capacity for the two ATR trains is 1 100 000 nm3/h (985 mscfd).
- Team leader in successfully commissioning and demonstrating the ATR- and Hydrocracking technology in this new challenging environment.
- Co-ordinating all Process engineering activities during the commissioning phase of the two ATR trains as well as the Hydrocracker.

1989– 2006 PetroSA
2002 - 2006
Position: Chief / Principal Process Engineer (GTL/LTFT)
Chief/Principal Process Engineer for GTL Technology Development at PetroSA to co-ordinate / lead the following activities:

- Conduct pre-feasibility studies for an entire GTL Complex at Lurgi in Germany.
- Conceptual design team member for different Reforming Technologies.
- Conduct feasibility studies for a 4 train 80000 bpd GTL Complex
- Team member in optimising the Gas loop of a 80000 bpd GTL Complex
- Conduct Due Diligence studies for different Reforming technologies
- Demonstrate and achieve technology approval for a 1000 bpd for LTFT slurry bed Technology
- Register Patents for ATR and SMR Reforming, LTFT and COD processes

Highlights during this period:

- Team leader in successfully demonstrating Low Temperature Fischer Tropsch (LTFT) slurry bed technology (Statoil) over a 2 year period.
- Achieved technology approval for commercialisation from Statoil, Lurgi and PetroSA for this LTFT slurry reactor design.
- Team member in conducting conceptual design for Reforming technology as well as a feasibility study for an entire GTL complex (6 month in Germany)
- Manage a Process engineering team that worked for Statoil, Lurgi and PetroSA in this joint venture new LTFT Technology.
- Responsible for all performance tests conducted on the LTFT semi-commercial plant at PetroSA in close corporation with process engineers of Lurgi and Statoil, Laboratory as well as the Project Engineering team.

1997 - 2002
Position: Plant Production Manager (Syngas Generation Division)
Production Manager of the Reforming Division, which consists of three Combined Steam Methane- and Auto-Thermal reformer trains, PSA and MEA units as well as the boiler feed water system and 125 bar steam export facility.
Key responsibilities during this period:

- Managing a production team consisting of 30 Shift personnel as per Minerals Act no. 50 of 1991 and regulations “Mines and Works Act” No. 29.
- Responsible for the day to day operation of the Reforming division which include budget control, catalyst loading/unloading activities and co-ordinating statutory shut downs.
- Plan, co-ordinate and safely re-commissioning the three Reformer trains during the October 1997, April 2000 & June 2003 statutory shut downs.
- Responsible for the operational activities during the rebuilding and re-commissioning of Reformer 3, after SMR 3 suffered an explosion in Oct 1997.
- Seconded back to Production as Operations Manager (July 2003 – Feb 2004) and took over all the responsibilities associated with rreplacing all 6x WHB’s. Successfully recommission all three Reformer trains (3 x SMR’s & 3x ATR’s) after a failure incident of all 6 WHB’s June 2002.

Highlights during this period:

- Successfully installed and commissioned new burners in the three Auto-thermal reformers.
- Safely re-commission Steam Methane Reformer no 3 successfully in 1998 after the 1997 explosion. (Re-construction period 398 days - 30 million US$ project).
- Safely re-commission all six ATR-125 bar Waste Heat Boilers and three Steam Superheaters. Activities during this exercise includes Boil-out, Dry-out and curing of refractory in the WHB’s and steam Blow-out of the new equipment and steam lines.
- Successfully replaced all six 125 bar Waste Heat Boilers again in 2003 damaged due to poor quality boiler feed water.

Summarised is a short description of the Process Units, under his responsibility:

- The Reforming division consists of three identical Combined Methane reformer trains with a dry syngas capacity of 850 000 nm3/h (761 MMSCFD).
- Each Reformer train consists of a 228 tube Methane Steam Reformer as well as Oxygen blown ATR.
- CO2 removal unit (MEA).
- Hydrogen Pressure Swing Adsorb unit (PSA).
- High pressure export steam (125 barg) as well as the boiler feed water system.

1989 – 1997
Position: Senior Process Engineer (Refinery)
Senior Process Engineer on the Refinery Divisions at PetroSA, during the FEED, Construction and Commissioning phase of the following refinery processes:

- Platformer (Semi-Regeneration Unit)
- NHT (Naphtha Hydrotreater)
- DHT (Distillate Hydrotreater)
- NGL Fractionation & Vacuum distillation
- Synthol Oil Fractionation & Vacuum distillation
- COD (Catalytic conversion of Olefins to Gasoline and Distillate)
- HF Alkylation
- Butamer
- Penex

Key responsibilities during design phase:

- PFD (Process flow diagram) reviews.
- MFD (Mechanical flow diagram) reviews.

- Conduct model reviews and HAZOP studies.
- Liaise with the different licensors (UOP, IFP & Lurgi) during the design phase.

Key responsibilities during construction and pre-commissioning phase:

- Physical "Check-out" of all equipment to ensure process integrity. i.e. reactors, distillation columns, vessels, pumps and compressors.
- Developed mass balance programs by utilising PI and LIMS network.
- Conducted/co-ordinated all performance and demonstration test runs in collaboration with the Licensors of the units. (UOP, IFP & Lurgi)
- Classroom training of operating personnel and wrote start-up, shutdown and emergency procedures.

Key responsibilities during post-commissioning phase:

- Conduct mass balances, monitor unit performances and optimise processes with the different licensors (UOP, IFP, Lurgi).
- Assist with Bi-annual factory statutory (1993 & 1995) T&I, catalyst loading and start-up activities for the all refinery reactors.
- Solved process problems with Aspen-Plus simulation packages.
- Initiated and followed through economically justified projects.
- Team leader for more than 8 in-situ catalyst regeneration/de-coke of the NHT, DHT as well as Semi-regen Platformer.
- Technical team leader for all refinery units for the 1993 and 1995 statutory shutdowns.
- Solved severe corrosion problems in the Catalytic conversion of Olefins to Distillate (COD) plant by conducting laboratory tests to understand the corrosion mechanism.
- Conducted unleaded 98 RON test-run on the Platformer as well as a Low aromatic diesel test run on the Distillate Hydrotreater.
- Conduct extensive COD pilot plant test work in Richards Bay to evaluate the performance of the COD catalyst.

1985 – 1989 Natref Oil Refinery
Position: Process Engineer (Oil Refinery)

- Senior Process Technologist at NATREF (National Oil Refinery) from October 1985 until June 1989 on the Hydrocracker Division, which consists of:
- BOC - (200 bar Black Oil Hydrocracker, Visbreaker & Vacuum column)
- DHC - (150 bar UOP licenced - Distillate Hydrocracker)
- Methane Steam Reformer - (110 tube Forster Wheeler SMR)
- CO2 removal unit – (MEA)
- Reported directly to the Divisional Production Manager and key objective was to contribute to the profitability of the Division by supplying a technical service.

Responsibilities during this period:

- Monitor Unit performances, optimisation and problem solving.
- Assisted in unit shut-down, catalyst loading and start-up activities for the SMR, DHC and BOC reactors.
- Initiated and followed through economically justified projects/modifications.
- Technical team leader for all of above mentioned units for the 1985 and 1987 statutory shutdowns.
- Team leader for two in-situ LT Shift catalyst reductions.

COMMENT

A highly accomplished Gas-To-Liquid Operations and Commissioning Manager and Process Engineer, with a overabundance of unique and unrivalled international experience of delivering bespoke Commissioning and process engineering solutions over the full range of project execution stages, ranging from technology development and optimisation for small to medium-sized enterprises to managing operational and process engineering activities and providing operational/process expertise as part of multi-billion dollar petrochemical projects and studies.

Analytical and innovative by nature and able to stimulate, inspire and lead operations and technical teams and influence internal and external stakeholders. A collaborative leader and in Commissioning/Operational and Technical departments and 'overall authority' in the companies he worked for.

He is a Commissioning Manager / Process Engineer with over 36 years of experience and have extensive GTL experience working on projects like the Escravos GTL Complex in Nigeria, the Compact GTL in Oxford UK, ORYX GTL plant in Qatar and PetroSA in South Africa. He has strong Process, Operations, and Commissioning experience working in many lead and management positions throughout his career.

For further information please contact Jan Johnston or Julie Smith on 01695 570 696 or email julie.smith@johnston-vere.co.uk