CURRICULUM VITAE



Name: Robin Dargavel

Position: Independent Expert Adviser -

Engineering and Construction

Nationality: British

Qualifications: CEng Chartered Engineer U.K.

BEng (Hons) - Engineering HND - Plant Engineering

HNC - Mechanical & Production Eng



SUMMARY OF EXPERIENCE:

30years experience: Nuclear, Power Generation, Oil & Gas (Onshore and Offshore), Petrochemical Process Plant, Engineering, Design, Procurement, Construction, Commissioning and Start-up, UK & Worldwide. EWI (Member of Expert Witness Institute), IGEM, MIPlantE, MWeldI MIET, MSOE, MCQI, MInstNDT, MIAQP, LEP (Licensed Engineering Practitioner), Chartered Engineer U.K. Engineering Council No: 489260.

PROFESSIONAL EXPERIENCE:

2016 - 2021 PROJECT ENGINEERING CONSULTANT (INDEPENDENT EXPERT ADVISER / WITNESS, CONCEPTUAL STUDIES AND TENDER PROPOSALS)

2021 - Consultant EPCM Adviser - Johnson Matthey, Clean Air Division, Royston U.K. / Gwilice Poland. New Build manufacture modern autocatalysts, plant extension 2020 – Lead Mechanical Engineer – HHI (Hyundai Heavy Industries), KOC Offshore PiP (Pipe in Pipe) pipeline / process facility, FEED, detailed Design, Procurement Technical Requisition, Construction Technical Adviser.

2020 - International Arbitration, offshore / onshore LNG Plant, Australia Independent Technical Expert, LNG module piping thermal insulation, engieering design, installation.

2019 - Fuel Loss Reconciliation Study for AECOM, for their client Transnet, South Africa.

2019 to 2020 - PRMS (Pressure Reduction Metering Station) FEED, detailed design, Vendor Package Engineering. Design Review, HAZOPs,

2019 - Expert Witness Technical Report for Adjudication & Independent Expert Adviser Engineering, regarding a Turbine Power Generation Vendor Package, International Client, London ICA, Arbitration.

2018 to 2019 - HIT, Gasfin, Tema LNG / TLTC, Ghana, HP onshore Gas pipeline and PRS, FEED (including process flow assurance offshore and onshore), Detailed Design, Project Management support, Construction and Commissioning Supervision, start-up and operations and maintenance.

2018 - McLellan and Partners, Consulting Engineers, pipeline investigation of property damage technical report for loss-adjuster, insurance claim.

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www.dargavel.com

2018 - MOGS (Mellitah Oil & Gas B.V Libyan Branch), Sabratha Platform / Commissioning Verification Engineer, Bahr Essalam gas and condensate field pha, se II development. Phase II Project - development of the C Central A area and the C East area, and upgrade of the Sabratha platform. C East area, two clusters, subsea facilities connected to the existing riser and J-tubes of the Sabratha Offshore Production Platform.

2015 to present - Conducting training for International Clients, such as (AkzoNobel, Petronas, Shell, Kuwait Oil inter alia); AST (Above-Ground Storage Tanks, Onshore Pipeilines, Cathodic Protection, engineering, design, construction, commissioning and maintenance, including repairs. Furnace Maintenance/Troubleshooting, combustion and heat 'T' modelling, furnace failures, decoking, maintenance and inspection programmes inter alia.

2017 to 2018 - DUSUP (Dubai Supply), Margham Gas Plant, Flowline (laterals) 'Surface Lay Feasibility Study', considering whether the new re-injection laterals can be surface laid i.e. rather than the original above ground design philosophy of resting on piled pipe supports, to minimise cost and construction time. Reviewing design parameters of existing system in form of design basis and then considers, the mechanical integrity of a typical lateral and header tie- in section, with respect to wall thickness, restraints and performance in a surface lay condition against a shallow bury scenario. Wall thickness calculations, buckling and stress in accordance with ASME B31.8 are considered. A high-level cost analysis of each solution is presented and consideration of advantages and disadvantages of proposed solutions.

Conceptual study for multi-products (Hydro-Carbons) pipelines, Ghana, West Africa, preparing Concept Report. Technical submission for qualification to tender for assessing the effective natural gas deliverability of Afghanistan gas fields and to provide supervision, quality assurance and technical support for the Construction of a Gas Pipeline and Process Plant. Preparing and submitting Technical and Commercial Proposals for RFP's (Requests for Proposals (Tendering)), for Oil Refinery upgrades (Crude oil Distillation and Storage capacity upgrades), Project Management Consultancy Services, Storage Tank Repair Engineering and Cathodic Protection Engineering, Detailed Design and Installation, West Africa. Independent Expert Adviser / Witness services for Nuclear and Oil and Gas / Chemical Engineering and Construction Projects, U.K. and Europe.

- 2016 CONSULTANT PIPELINE PROJECT ENGINEERING
 - BOST (Bulk Oil and Transportation), Ghana, 750km Gas Pipeline.
- 2015 2016 CONSULTANT KEY EXPERT PIPELINE CONSTRUCTION MANAGEMENT GTCL, Bangladesh, Dhanua Elenga pipeline and facilities (30" x 52km).
- 2015 <u>PIPELINE CONSTRUCTION MANAGER</u>

ExxonMobil South East Pipeline Diversion, ExxonMobil / Penspen.

2014 - 2015 BID EVALUATION TECHNICAL MANAGER / LEAD ENGINEER (PIPELINES)

Consultant on the BP Khazzan Project, Oman, Technical bid proposal evaluation Technical Manager for pipelines.

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- 2012 2014 <u>SENIOR FACILITIES ENGINEER & MCDR ENGINEER'G SUPPORT MANAGER</u> Fairfield Energy supporting conceptual development and field development.
- 2011 2012 <u>MAINTENANCE SUPERINTENDENT</u> Yemen LNG, TOTAL Balhaf, Republic of Yemen.
- 2009 2011 PROJECT MANAGER
 Pencol Engineering Consultants NOC Zueitina Oil Company, Libya.
- 2008 2009 <u>SENIOR MECHANICAL / MATERIALS ENGINEER</u> Lloyd's Register / Dargavel Engineering Ltd, AGIP KCO, Kashagan.
- 2002 2008 <u>MECHANICAL ENGINEER (OFFSHORE MAINTENANCE)</u>
 TOTAL, EPNL (Nigeria), providing technical support to the Head of Maintenance.
- 1989 2002 CONSTRUCTION SUPERINTENDENT / PROJECT MANAGER / ENGINEER

 COTCO (ExxonMobil) Chad/Cameroon 30" Dia Oil Pipeline. TCO (ChevronTexaco, ExxonMobil, Tengiz, Kazakhstan. EXXONMOBIL Producing Nigeria Unlimited. PB Kennedy & Donkin Nuclear. Shell Stanlow, Planned Annual Shutdown. Q.G.P.C. (Qatar), OXY (Occidental) Int'l, Qatar. (Persian Gulf). AOLIOS Eng Co. Canada, Williams Grand Prix Engineering Ltd. Keliston Engineering Ltd (Ipswich) / Dargavel Engineering Ltd / Southwest Water Plc., Cornwall, England, U.K., new-build sewerage outfall. Laing I.E. & C Ltd / Nuclear Electric (Sizewell 'B', Power Station.)
- 1983 1989 <u>APPRENTICESHIP: WELDING / QC / DESIGN / PROCUREMENT</u>
 Press Construction, (Darlington) / A.M.E.C. PLC. Gas, Nuclear, Petro etc. U.K.

COURSES/ CERTIFICATES

IRCA (INTERNATIONAL REGISTER OF CERTIFICATED AUDITORS), IOSH: Managing Safely (Course and Exam) C.S.W.I.P. Senior Welding Inspector 3.2.2 (Since 1991), , NSL 5 Day Lifting Equipment Inspectors (Module No. 1) Course & Exam Pass, NSL 3 Day Pedestal & Mobile Crane Cert'n, CSWIP Site Coatings, ICorr Level 2 Site Coatings & Fire Proofing Inspector., PSV Overhaul & Recert' (TYCO Valves), , Lifting Certification Engineer, Lifting Equipment Examiner.

LANGUAGES

English: Fluent

Friench: Basic Spoken and Written

COMPUTER LITERACY

Fully conversant with MS Applications and MS Project, also Primavera P6/Suretrack, "S.A.P." systems i.e. notifications, W.O.'s, prev' maint'ce, purchasing, 'SYNERGI (Risk Management Software)'.