Mike Haworth

Qualifications Chartered Engineer

BSc

Affiliations Member of the Institute of Mechanical Engineers

Member of the Royal Aeronautical Society

Nationality British

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Current Position at CWA

External Consultant.

Specific Expertise and Experience

4 Years Independent Tank Design Consultant.

18 years as a founder director of Technodyne Int. Ltd specialising in Cryogenic Tankage Design. Designed over 100 cryogenic tanks.

4 years in corporate engineering management at British Gas.

15 years in cryogenic tank and vessel engineering and construction in the Petrochemical Industry.

6 years' experience in Defence and Aerospace special projects

Total of 46 years' experience of engineering design, engineering, project management and construction of multi-discipline teams in small and large companies. Work has involved living and working in a variety of locations in Europe and the Middle East.





Recent Relevant Projects

Current Owner's Engineer on LNG export terminal, Nova Scotia,

Canada, FEED Stage.

Expert Witness on LNG tank construction litigation,

Australia.

Consultant on aged LNG tanks re-validation, UK

2018 Due Diligence for purchaser of LNG terminal.

2017 Owner's Engineer EPC phase and bid assessment for

LNG import terminal, India.

2016 Consultant for conversion of tank LNG to LPG, UK

Failure investigation of 120,000 m³ LNG tank

Project Director for Technodyne,

design of 3 off 160,000 m³ LNG tanks Qingdao, Shandong,

China

2014-17 Project Consultant om owner's team for 260,000 m³ Tank

FEED on Phase 3 Singapore LNG.

2015 Consultant on study for T2 site for SLNG.

2012-2014 Project Director for Technodyne,

design of 3 off 160,000 m³ LNG tanks Qingdao, Shandong,

China

2010-2012 Project Director for Technodyne,

design of 6 off 160,000 m3 LNG tanks on 2 projects in

Jiangsu and Dalian, China.

2010 Investor's Engineer for tank on Poland LNG project.

Consultant to EMA, later SLNG for tanks on Phase 1 in

Singapore.

2009 Bid project lead designer for ENEL Empedocle

LNG Tanks and Pits, Sicily.

2008 Owner's Engineer team member for tanks for Eon during

FEED stage, 2 x 160,000 m3 LNG.

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2005-2016 Owner's Engineer Team member for Tank design for

3 off 190,000 m³ new LNG Tanks for Isle of Grain in UK.

Also for additional 1 tank 3 years later.

2005 - 2007 Owner Engineer Team member for Tank design of new

160,000 m³ LNG Tanks in Brindisi Italy. Also feasibility

study with MWK, Brindisi.

2004 - 2005 Consultant on refurbishment Design of old LNG Tanks

for Isle of Grain. Review of contractor designs and

drawings.

2004 Review of seismic capability of existing LNG Tank, UK.

2001 Fitness for purpose assessment of LNG tank, India.

Review of Design drawings on tank and process system.

Interviews with designers, report.

2000 Assessment of ability to meet current codes, calculations,

establish failure rates, meeting with HSE.

Summary of Employment

1995 - 2014 Technodyne Int. Ltd

Founder, Technical Director and MD

Specialising in Low-temp and Cryogenic Tank Design. Personally designed over 100 such tanks in an 18 year period. 6,000 m³ up to 250,000 m³. Built up the team from zero to 50 strong. Sold Company in 2011.

1991 - 1995 British Gas Construction

Manager, Design Services

Member of the Construction Management Board at British Gas. Responsible for Design and Resources, in Construction departments included Business systems, CAD and Software development, and Engineering disciplines. Up to 400 staff worked in a matrix management system on a wide range of Gas projects for pipelines, terminals, LNG and gas treatment plant.

1986 - 1991 Brown & Root Vickers

Head of Mechanical Engineering

Part of Brown & Root (UK), BRV designed a wide range of special purpose equipment for Offshore, Defence, Nuclear and Aerospace Industries. Design responsibility with a team of up to 70 multi-discipline engineers.

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1971 - 1985 Chicago Bridge & Iron, London, Germany, Holland, USA Design Engineering

Manager of Low Temp Engineering Group, previously Design Engineer, Construction Supervisor, Field Engineer, in Europe and Middle East, specialised in cryogenic tanks.

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