

**Gary Brooks** – MSc, CEng, CSci, FDS, FDS.  
 FIMMM, FWeldI, *MInst*NDT, MEWI (Cert.), MCSFS, AICorr, ACIArb.  
 Cert.–IWE / EWE, CUBS.

### Expert Witness, Arbitration & Mediation Profile

- CUBS (Cardiff University Bond Solon) Civil Expert Witness Certificate. (000804622)
- Certified Member of the Expert Witness Institute – (MEWI – Cert)
- Associate member of the Chartered Institute of Arbitrators (CIArb), having completed courses related to mediation and alternative dispute resolution (ADR).

### Expert Witness Experience

Project	Jurisdiction / Region	Claimant / Respondent	Dispute / Report Type	Appointment Type	Expertise Provided	Testimony (Y/N) / Where	Year
Al Layyah – Combined Cycle Gas Turbine Power Plant	Sharjah, UAE	Claimant	Advisory	Joint Technical Expert – Briefing Note	Corrosion and Materials Science	No	2023 to 2024
Riverlinx CJV – Silvertown Tunnel – Road tunnel under the River Thames	London, UK	Claimant	Adjudication	Single Technical Expert	Welding Engineering and Fabrication	No	2024
Oil and Gas Compound – Tank Rupture	Peterhead, Scotland	Respondent	Insurance Claim	Single Technical Expert	Corrosion, Failure Investigation	No	2024 to 2025
Refinery and Petrochemical Integrated Development (RAPID) project – DSS REAC Header Failure	Pengerang, Johor, Malaysia	Claimant	International Arbitration	Joint Technical Expert	Welding Engineering, Fabrication, NDT, Physical Metallurgy	Yes / Malaysia	2024 to 2026
UPM Single line Eucalyptus Pulping Mill – Taurus Project	Centenario, Uruguay	Respondent	International Arbitration	Single Technical Expert	Quality Assurance and Quality Control	Yes / Madrid, Spain	2024 to 2025

I represent both claimants and respondents and have authored independent and joint expert reports, participated in joint statements, and collaborated with legal teams across Asia Pacific (China, Singapore, Malaysia, Hong Kong, Australia), North and South America (USA, Brazil, Uruguay), the United Kingdom, and the Middle East (UAE). I bring a unique blend of extensive practical experience and advanced theoretical knowledge, enabling me to analyse failures, identify root causes, and communicate complex technical findings effectively to legal professionals and tribunals.

## Areas of Expertise

Welding Engineering, Physical Metallurgy, Fractography, Heat Treatment, Non-Destructive Testing, Quality Assurance, Quality Control, Fabrication, Infrastructure, Welding and Fabrication, Failure Investigation, and Corrosion.

## Current Clients and Stakeholders

TRIPOS Global / Apex Applied Science and Engineering	(USA)
HKA Global	(Global)
Vertex Engineering	(Global)
British Petroleum	(BP UK)
EDF / NNB GENKO	(UK Nuclear)
Asset Integrity Engineering	(UAE / Qatar / India)
Atomic Weapons Establishment / MoD	(UK)
Costain Nuclear, Defence, Oil & Gas, Energy, Aviation, Pipelines	(UK)
Bureau Veritas Clean Energy	(UK)

## Sector and Plant Type Experience

Civil Nuclear | Nuclear Defence | Pipelines | Biomass | Hydrogen storage and transportation | Oil & Gas | Refining and Petrochemical | Fossil Fuel | Waste to Energy | Offshore Wind | Heat Recovery Steam Generators (HRSG) and Combined Cycle Gas Turbines (CCGT) | Marine / Naval | Flood Alleviation and Tunnels.

## Professional Profile

I am a Chartered Engineer (CEng), Chartered Scientist (CSci), and Certified Civil Expert Witness with over 30 years of practical, technical, and leadership experience. I started my career as a labourer, progressing through college to become a welder and fabricator, then expanding into plater/fabricator and pipefitter roles, specialising in general fabrication, plant maintenance, outages, and new build projects. Over the years, I have worked across various companies and numerous sites, gaining broad exposure to multiple sectors. I advanced to roles as an Advanced Coded Welder with companies such as Babcock, Alstom, and ABB, working on shutdowns, new builds, and gas pipelines.

Building on this practical foundation, I moved into technical and managerial leadership positions, becoming a trusted contact for engineering and quality matters on high-integrity projects across the nuclear, defence, oil and gas, petrochemical, energy, marine, and aviation sectors. My core expertise includes welding engineering, physical metallurgy, heat treatment, NDT/NDE, and QA/QC, with substantial involvement in supplier approvals, procedure and personnel qualification, and the review and approval of ITPs and other technical documentation. I have led cross-disciplinary QA/QC teams, inspectors, engineers, and technicians in highly regulated environments, ensuring compliance, quality delivery, and technical assurance.

## **Previous Clients**

Diales Technical (Global) | Rolls-Royce Nuclear Submarines & Civil Nuclear New Build (NNB) | Hythe Marine Naval & Building Services | Alstom Power | Manoir Industries Nuclear & Petrochemical | General Electric Power Services | Babcock International Nuclear Defence | Hi-Tech Fabrication Nuclear & Petrochemical | Nuttall Marine Piling Division | Mitsui Babcock.

## **CURRENT ROLES.**

**Vertex Engineering**, June 2025 – Present

***Independent Consulting Expert***

Dispute and Expert Witness services. Providing support for global appointments within my areas of expertise through expert advice, expert determination, and expert witness services.

**TRIPOS Global**, January 2025 – Present

***Forensic Engineer and Expert Witness***

Forensic Engineering and Expert Witness services, supporting the US region with expertise in Welding Engineering, Physical Metallurgy, NDT, Corrosion, Fabrication, Quality Assurance, and Quality Control.

**Asset Integrity Engineering**, October 2023 – Present

***Principal Welding Engineer***

Single point of contact for all welding and repair work, supporting AIE's client base across | Oil, Gas and Chemicals | Power and Utilities | Renewables | Metals and Mining | sectors, with company locations in the UAE, Qatar, and India.

**HKA Global Ltd**, June 2023 – Present

***Independent Consulting Expert***

Supported global appointments within the FTS (Forensic Technical Services) group and served as an ICE (Independent Consulting Expert), offering expert advisory, expert determination, and expert witness services.

**Costain – Defence & Energy**, March 2022 – Present

***Subject Matter Expert***

Providing high-quality services as the Subject Matter Expert in technical processes, including Materials/Metallurgy, NDT/NDE, Corrosion, Heat Treatment, Inspection, Coating, and Welding Engineering. Working on Nuclear Defence projects (AWE, Babcock International), Aviation (Manchester, Gatwick, Heathrow Airports), as well as oil and gas and pipeline projects (Breagh Gas Field, Teesside Net Zero), within the Engineering and Quality Services teams, managing all technical issues and supporting all quality teams in Defence and Energy sectors. Acting as deputy to AWE's TA (technical authority) for welding and NDT across all their capital projects.

**Bureau Veritas – Clean Energy**, August 2018 – Present

***Technical Manager and Subject Matter Expert***

Technical Manager and SME for projects in nuclear defence (AWE), nuclear energy (Hinkley Point C), and offshore wind, collaborating closely with client technical authorities and BV's Quality and Engineering teams.

- Technical lead for activities under BV's UKAS Schedule, including second-party verification of vendor and subcontractor inspections for new manufacture and refurbishment of equipment used on UK nuclear Site Licence Companies.
- Ensure all accredited activities comply with ISO/IEC 17020:2012 within the Nuclear (INY) business unit.
- SME for welding, metallurgy, materials, NDT, and repair activities across site and supply chain scopes.
- Primary point of contact for project issues in SME disciplines; responsible for approval of supplier technical documentation and responses to TQs, non-conformances, and concessions.

## **HISTORICAL ROLES**

**Diales Technical**, December 2024,

***Independent Consulting Expert***

To provide advisory and technical services for global assignments across all power and engineering sectors.

**GE Power**, January 2016 – August 2018

***Global Technical Programme Manager.***

I led the implementation of a welding improvement programme that standardised welding practices, procedures, and quality systems across Europe (UK, France, Germany, Estonia, Poland, Switzerland, Czechoslovakia) and the Americas. This initiative ensured compliance with regional standards, ISO 3834-2 requirements, and customer or code specifications — often translated into local languages — while also improving cross-regional resource utilisation. I developed and managed a live European weld database to track weld volumes, repair rates, and failure investigations, fully integrated with RCA and 8D processes. This work directly contributed to reducing field weld repair rates to below 1%, with further targets of 0.5–0.7%, particularly notable for high-pressure site welding under access constraints and tight timelines. In parallel, I served both as manager and SME for global welder training and field services. I oversaw all welding activities from apprentice programmes to field execution, managing welding, inspection, and quality control resources. I was also tasked with expanding two new areas of business: international welder training across sectors, and the development of a specialist welding field service team for GE Power Services.

**Alstom Power**, January 2014 – January 2016,

***Welding Engineering Manager.***

I led the company's global welding and training operations, overseeing the qualification of welding procedures and welders across various energy sectors, including fossil fuels, nuclear, and renewables. My responsibilities included managing practical and theoretical training programmes, providing consultancy services, and investigating weld performance issues to support improvement initiatives. Annually, I coordinated the qualification of up to 400 welders, maintained ASME accreditations, and audited welding procedures during major outages. I led a team of over 15 welding engineers and supervisors, ensuring high standards across maintenance, new build, and shutdown activities worldwide. My work covered Europe, Africa, the Americas, Australia, and China, supporting major international projects with technical guidance and strategic oversight. I also mentored apprentices and recruits, with several achieving recognition in national and international welding competitions under my leadership. My role combined technical authority, safety oversight, and budget control within a high-performance welding function.

**Rolls-Royce Civil Nuclear**, August 2011 – January 2014. *CA - Lead Technical Engineer.*

I played a key role in developing processes and technologies to support the UK Nuclear New Build programme, focusing on delivering business savings through technical process improvements. Leveraging Measurement System Analysis (MSA), Gauge R&R, and Design of Experiments (DoE), I planned, managed, and delivered various process development projects, integrating them with core welding engineering responsibilities.

As a local subject matter expert, I supported welding and materials-related issues across the organisation, delivering projects within MCRL/TRL frameworks and producing detailed technical documentation for welding trials. These covered all stages, including material procurement, machining, welding, pre- and post-weld heat treatment, NDT, and mechanical testing, in accordance with applicable codes and client specifications. I also prepared business cases, quality plans, and technical reports, and developed a strong foundation in DoE through Green Belt Lean Six Sigma accreditation.

**Rolls-Royce Nuclear Submarines**, July 2010 – August 2011. *Welding Engineer.*

As one of only two welding engineers supporting the manufacture of the Nuclear Steam Raising Plant (NSRP) for the Astute Class submarines (MoD), I was responsible for critical welding activities on a high-security defence programme. I served as the primary technical liaison during the ASME 'N' Stamp accreditation process for Rolls-Royce Civil Nuclear, assisting in aligning procedures with strict code and client requirements. My role involved drafting and reviewing welding specifications, WPSs, and welder/operator qualifications, as well as conducting structured 7-step investigations into welding and manufacturing issues. I also contributed to health and safety as an event investigator and delivered toolbox talks on essential weld acceptance criteria and procedural compliance.

**Manoir Industries**, July 2009 - July 2010.

*Group Welding Engineer.*

Group Welding Engineer on a 12-month contract serving the Nuclear, & Oil & Gas/Petrochemical industries. The only technical resource in the team. Patented work: Developed an automated GTAW application to increase heat convection in steam cracker furnace tubes.

**Hi-Tech Fabrication**, March 2007 - July 2009.

*Lead Quality & Technical Welding Engineer.*

Serving the nuclear, petrochemical, and pharmaceutical industries in accordance with PED, EN15614, PD5500, and ASME II, III, V, VIII, & IX, including B31.1, 31.3, and individual client specifications, managing multiple clients across Europe and India. The sole technical resource within the team. Leading QA/QC efforts and supporting the QA/QC Manager in all quality-related activities: developing a new QMS, establishing processes, and maintaining ISO 9001 accreditation.

**Babcock International**, February 2005 - March 2007.

*Welding Technician*

Supervising and training welders and fabricators on a specific contract for Rolls-Royce Nuclear Submarines and writing WPSs and WQs in accordance with ISO code requirements. Additionally, I was a lead welder after completing the development process steps for manufacturing these canisters.

**ABB, Alstom Power & Babcock**, April 2001 – Feb 2005.      **Advanced Coded Welder**

Working in the Energy, Oil & Gas, Nuclear, and pharmaceutical sectors across the UK and Europe. Working on gas pipelines (14", 36", and 42" Ø), outages, new builds, and maintenance of live plants. As an advanced coded welder for these companies, there was a variation between a day rate and an hourly rate, covering all manual and semi-automatic welding processes in all positions, and where needed, restricted access and mirror welding were carried out.

**Nuttall Marine Division**, August 1999 – February 2005.      **Lead Welder and Fabricator**

Worked as one of two lead welders during the flood alleviation works at Gainsborough, Lincolnshire, along the tidal river Trent inland from the Humber. I oversaw the entire project, from preparation and temporary works to permanent structures and completion. This is the only job where danger money was included on my timesheet alongside my hourly rate. I was a lead welder for the entire project.

**Banfield Engineering Co.**, March 1993 – August 1999.      **Labourer / Fabricator / Welder**

Initially employed as a labourer during the off-season at a British Sugar Plant in Bardney, Lincolnshire, from March to September (around 7 months) each year. This involved completely stripping out, renewing, and repairing pipework, vessels, and other components throughout the plant. This was my first introduction to welding and fabrication, which prompted me to attend college and undertake courses in welding and fabrication (EMFEC 165, levels 1-4). My role grew in tandem with my college studies, and I became a welder and fabricator of plate and pipework.

#### **Active – Education, Training, & Development:**

Chartered Institute of Arbitration	2025	Introduction to International Arbitration ( <b>in process</b> )
The Engineering Council	2025	International Professional Engineer (IntPE – UK) ( <b>in process</b> )
Northampton University	2025 to 2026	BSc (Hons) top-up in NDT ( <b>final year to complete</b> )
The Welding Institute	2025	Fellowship accreditation (FWeldI) Chartered Engineer (CEng.)
Expert Witness Institute	2025	Full Member, MEWI (Cert.)
British Institute of Non-Destructive Testing (BINDT)	2024	Member (MInstNDT)
Chartered Society of Forensic Sciences	2024	Member (MCSFS)
Bond Solon	2024 to 2025	Cardiff University Bond Solon (CUBS) Civil Expert Certificate
Legal Experience Training	2023	Essential Expert Witness Training (via HKA)
Institute of Materials, Minerals, and Mining (IoM <sup>3</sup> )	2023	Chartered Scientist (CSci.)
Institute of Materials, Minerals, and Mining (IoM <sup>3</sup> )	2022	Fellowship accreditation (FIMMM)
Expert Witness Institute	2023	Core Training Law for Experts Report Writing 1 & 2

		Experts Meetings & Joint Statements.
CI Arb	2023	Introduction to Mediation Applying Project Management Principles to Arbitration Practice
Northampton University	2019 to 2022	FDSc in NDT
Bywater	2019	Internal Auditor ISO 9001:2015
Cranfield University	2014 to 2017	Master's Degree in Science (MSc) – Welding Engineering
Rolls-Royce	2012	Lean Six Sigma Green Belt
The Welding Institute	2009 to 2013	Certified International & European Welding Engineer Diplomas (Cert.-IWE/EWE)
The Welding Institute	2013	Incorporated Engineer & Incorporated Member (IEng. & MWeldI.)
Leeds Beckett University	2008 to 2012	FDSc – Metallurgy & Engineering Materials
NLT Training Services	2008	IOSH Managing Safely
North Lincs College	1995 to 1999	NVQ levels 1, 2, 3 & 4 in Welding & Fabrication (EMFEC 165)

#### Expired – Education, Training, & Development:

The Welding Institute	2019	CSWIP Welding Quality Control Coordinator
Lavender International	2018	PCN Level 2 in PT (DPI)
The Welding Institute	2016	Radiographic Interpretation of Welds (Level 2) CSWIP Senior Welding Inspector – 3.2

#### Voluntary Work

- **EWf / IIW** UK Coordination Group Member (European Welding Federation / International Institute of Welding)
- **WEE / 36** Committee Member for British Standards Institution.
- **PRI** (Professional Review Interviewer) **Assessor** for The Welding Institute & The Engineering Council
- **CPD Assessor** for The Welding Institute & The Engineering Council
- **STEM** (Science, Technology, Engineering and Mathematics) **Ambassador** & Mentor
- **MERC** (Membership and Engineering Registration Council) **board member**

#### Next steps and development

- International PE registration (IntPE (UK))
- Membership of the Institute of Corrosion (MICorr).
- Complete the BSc (Hons) top-up in NDT (*1 year left to complete*)
- Complete MSc by Research (MScR) at Birmingham University (2-year part-time research project) within the Metallurgy & Materials department – 2026 to 2028
- Complete API 571 – Damage Mechanisms
- Complete ASME Plant Inspector levels 1, 2, 3.
- Complete ICorr Coatings Inspector levels 1, 2, 3.
- NDT PCN level 2 and 3 qualifications – **VT** (3.2 / level 3), **RI** level 2, **UT** level 2, and 3 (3.1, 3.2), **RT** level 2, and 3, **PAUT** level 2