

Diving & Life Support Services

QinetiQ Diving & Life Support Services delivers safety support to the UK Health & Safety Executive (HSE) Diving Group

About UK HSE

The UK HSE is the national independent watchdog for work-related health, safety and illness. It is an independent regulator and acts in the public interest to reduce work-related death and serious injury across the UK's workplaces. It works with co-regulators in local authorities to inspect, investigate and where necessary take enforcement action. The HSE is a Government run institution which employs around 3,500 staff.

The HSE is split into a number of directorates, one of which is the Hazardous Installations Directorate (HID). The HID includes the Diving Group which is part of the Offshore Division and controls risks to the health and safety of workers, and the public from the activities of the diving offshore oil/gas and renewables industries (including drilling, well control, marine and aviation activities).

HSE Diving Group

The Diving Group was established to look at all forms of 'paid for' diving including MoD and recreational activity. Diving at work covers a wide range of activities; from deep saturation diving in support of the offshore oil and gas industry, to recreational instruction by an individual professional instructor.

The "diving industry" can be considered as a number of sectors where people are required to work underwater, usually to access a work site. The total population at risk is estimated at around 53,000. These include approximately 5,000 "commercial" divers holding current diving medicals, approximately 8,000 members of the armed forces (including "recreational at work" diving as part of adventurous training) and in excess of 40,000 members of the public receiving some form of paid instruction every year.

Diving is considered by HSE to be a "high hazard" occupation. The fatal accident rate for the offshore and inland/inshore sectors has typically been in the region of 20 – 40 per 100,000 - considerably higher than construction or agriculture. The fatal accident rate for all diving at work activities is estimated at 6 – 7 per 100,000.

The Diving Group's inspection and investigation activities include:

- Inspection visits to dive sites (either pre-arranged or unannounced)
- Inspection visits to offices/bases of diving contractors and client companies
- Investigation of accidents/incidents and complaints
- Assessment of diving aspects of offshore safety cases



Divers at work

Key challenges of the HSE Diving Group

The primary challenges faced by the Chief Inspector of Diving and his team in executing their duties stem from the diversity and size of the "diving industry" in terms of geographic locations and the type and scale of activities undertaken. Diving contractors range from large international marine operators who are larger than some of the oil companies who employ them, through to self-employed recreational instructors operating from their homes.

Challenges include:

- Having a sufficient breadth of experience across all diving activities
- Keeping abreast of rapidly evolving technical developments
- Satisfying the needs of a broad range of stakeholders including diving companies operating across a wide range of industries
- Providing a timely response to incidents

The role and value of QinetiQ Diving & Life Support Services

QinetiQ have worked for the HSE Diving Group for over 10 years delivering a range of services and support including research projects, technical investigations following accidents, and the provision and exchange of technical information. These have been delivered by a combination of skilled and knowledgeable QinetiQ diving safety experts, supported by a comprehensive range of facilities and equipment, some of which are unique.

The length of this business relationship is based upon QinetiQ's reputation in the industry, their reliability and independence.

Research projects conducted by QinetiQ Diving Life Support Services include:

- Off the shelf dive equipment testing, such as the breathing performance of scuba octopus rig back-up equipment.
- Noise exposure of working divers; QinetiQ was commissioned to look at the complex issue of the impact of noise on divers working underwater. Based on the output from this work the HSE Diving Group were able to issue a guidance document and approach the diving industry and equipment manufacturers, to consider the impact of noise and address the key issues.
- Research into differential pressure hazards which also resulted in the publication of an industry guidance document.

QinetiQ also supports the HSE Diving Group in the area of technical investigation after incidents including the testing of equipment. These are often very complex and require a significant level of technical know-how and supporting facilities.

QinetiQ maintains strong connections across the international diving safety world. This provides their clients with up to date independent knowledge on the market and valuable insights on safety.

QinetiQ

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About QinetiQ Diving & Life Support Services

QinetiQ has unrivalled knowledge in the field of diving and life support. Over the last 30 years we have delivered diving and life support services to the UK Royal Navy, NATO, UK Health and Safety Executive and commercial diving organisations such as Technip.

We are a long-term partner for diving and life support research, testing and evaluation for the UK Royal Navy.

QinetiQ is one of the world's leading research organisations into hyperbaric physiological effects in diving and other environments, and regularly provides rapid response provision of forensic testing services for the investigation of diving incidents.

Our independence from suppliers is important to us and ensures that the advice we provide is totally impartial.

Our Diving & Life Support Services are supported by an extensive range of unique world class facilities in the Diving and Hyperbaric Test Centre at QinetiQ, Gosport, UK.

QinetiQ Diving & Life Support Services include:

- Equipment Testing and Validation – providing unmanned and manned testing services to define the safe performance of diving systems.
- Incident Investigation – rapid response forensic service for investigating diving equipment involved in serious incidents including the provision of expert witness.
- Diver Performance Optimisation, Testing & Advice – providing assessment of gas toxicity, decompression profiles, effects of sound and thermal protection for optimal diver performance.
- Diving Safety and Assessment – development of standards for diving equipment and systems, building safe optimised diving procedures and technical support to equipment safety cases.
- Diving Medical Support – medical support to diving operations including the provision of hyperbaric oxygen therapies at St Richard's Hospital, Chichester, along with the capability to perform diving medicals.

Delivering world class Diving & Life Support Services to customers around the world