

The Standards Setting Body for Explosives, Munitions and Search Occupations

Work in support of explosives, munition clearance and search competence

The purpose of the Standards Setting Body for Explosives, Munitions & Search Occupations (SSB for EMSO) is to foster competence in the explosives industry through the commissioning and maintenance of nationally accredited standards and qualifications, in particular National Vocational Qualifications. A voluntary, freestanding committee, the SSB seeks to achieve consensus views on competence related matters through consultation with and between stakeholders. The SSB also works closely with a number of other bodies, including the Health & Safety Executive.

The SSB was originally established in early 2000 to develop National Occupational Standards (NOS) and National/Scottish Vocational Qualifications (N/SVQs) for use in munition clearance (essentially explosive ordnance (EOD) disposal) and search (MCS) occupations. This sector was – and to some extent still is – largely the preserve of the Armed Forces and other government agencies, although non-governmental and commercial organisations are increasingly involved in this field, often working alongside or in tandem with their military counterparts.

The MCS standards project commenced in September 2000 with rigorous research to describe the industry – civilian and military – and to identify the training and skills issues needing to be met by the proposed standards and qualifications. Conducted by specialists in consultation with search and munition clearance managers and operatives from across the industry, this preliminary work enabled the production of a detailed occupational map, a narrative description of the purpose, scale and scope of the industry and its training and accreditation mechanisms, along with analysis of current trends, needs, strengths, weaknesses, opportunities and threats.

The next stage, standards development, began with the definition of a “Key Purpose Statement”, outlining the common aims of the industry. Then, the myriad functions that need to be carried out across the industry in order to achieve this purpose were defined. Simultaneously, experts from the Army, Navy and Royal Air Force, along with representatives of civilian de-mining companies and the Defence Science & Technology Laboratories, collaborated with qualifications specialists to develop National Occupational Standards in MCSO. Subsequently, these Standards were field-tested prior to the drafting of N/SVQs for each discrete role within the industry. These draft N/SVQs were then subjected to rigorous scrutiny by practitioners and trainers serving the industry prior to submission for accreditation by the regulatory authorities. Accreditation was granted in 2002 and the N/SVQs were launched at the National Army Museum in London on 21 October 2003.

Work in support of explosive substance and articles competence

In late 2003, at the request of the MOD's Defence Ordnance Safety Group, the SSB undertook to repeat this process for the whole of the Explosives Substances & Articles (ESA) sector (often known as “ordnance, munitions and explosives” (OME), including research and development, safety management, test and evaluation, manufacture, maintenance, procurement, storage, transport, facilities management, disposal and civil applications (eg special effects, oil and gas exploration, mining and quarrying).

During 2004 and 2005, the SSB's Occupational Working Group for ESA (OWG for ESA) held over 50 meetings and 45 one to three day workshops at which managers and practitioners assisted the SSB's expert adviser in:

- mapping the scope and size of the sector;
- defining its over-arching function (or mission);
- analysing the sector's key roles and functions;
- drafting NOS.

Almost 400 individuals participated in various parts of the process, although a central team of about 20 individuals bore the brunt of the work. The validation process alone involved over 300 people at 16 sites across the industry. The cash costs of the project of around £350k were met largely by principal stakeholders, although limited public funding was received through Science Engineering & Manufacturing Technologies Alliance (SEMTA), the Sector Skills Council (SSC) responsible at the time. The true cost of the project was probably to £900k.

Once the NOS were validated and endorsed by the OWG for ESA in late 2005, they were submitted to the appropriate authorities for accreditation. Then, work was carried out to:

- develop N/SVQs for people working at different levels (from operator to operational manager) based on the NOS;
- draw up evidence specifications, assessment guidance, centre and candidate guidance and model portfolios;
- map the NOS to Key Skills.

Consideration continues to be given to assuring the continuing fitness for purpose of the ESA NOS and to devising fundable apprenticeship frameworks.

Who has been involved?

Organizations that have been involved in the work of the SSB include:

- Army
- Atomic Weapons Establishment plc
- Awards UK Ltd
- BAE Systems
- British Pyrotechnists' Association
- Chemring Countermeasures
- Cogent (SSC)
- Controlled Demolition Group Ltd
- Cranfield University at Shrivenham
- Defence Logistics Organisation
- DEFLOG Vocational Qualifications Trust Ltd
- Defence Munitions Corporate Business Unit
- Defence Ordnance Safety Group
- Defence Procurement Agency
- Defence Science & Technology Laboratory
- Defence Storage & Distribution Agency
- Epic (Extractives & Mineral Processing Industries (NTO))
- Health & Safety Executive
- Institute of Demolition Engineers
- Institute of Explosives Engineers
- Leaffield Engineering Ltd
- MBDA Missile Systems UK Ltd
- MOD Defence Packaging
- QinetiQ
- Royal Air Force
- Royal Engineers Vocational Education & Training Trust
- Royal Navy
- Science, Engineering & Manufacturing Technologies Alliance Sector Skills Council (SSC)
- Skills for Logistics NTO
- Skillset (Audio Visual Industries (NTO))
- Special Operations and Education Academy
- Train 2 Protect International

Uses and benefits of N/SVQs and NOS

National and Scottish Vocational Qualifications (N/SVQ) and the National Occupational Standards (NOS) on which they are based have advantages for employers and employees:

- **For employers**, they offer the competitive edge of:
 - having an infrastructure for assessing and assuring the competence of staff, without costly courses and lost productivity
 - being better able to use human resources
 - enhanced staff motivation
 - being better able to demonstrate a commitment to quality (eg BS EN IS9000), investment in people, and the ability to comply with Industry Codes of Practice
 - having a tool to support staff appraisal processes
 - access to a tool for benchmarking
 - a training design and validation package

- **For individuals**, they offer access to:
 - formal recognition of professionalism and achievement
 - a framework, routes and targets for career progression and professional development
 - nationally recognised qualifications certifying competence
 - workplace assessment, instead of courses and examinations
 - opportunities to gain accreditation for competence demonstrated previously
 - confirmation of skills readily transferable to other sectors
 - other qualifications and, at some levels, entry to further - and even - higher education

Furthermore, all stand to benefit from measures of competence in an increasingly litigious age.

Invitation to participate

As can be readily seen, the Standards Setting Body has benefited from the involvement of many governmental, commercial and other organisations involved in ESA, but would welcome still wider participation in future. Even limited involvement ensures that an organisation has the opportunity to influence the design of future NOS (which will continue to be the UK's specification for best practice by the explosives sector) and, ultimately, the qualifications designed. Any activity involving explosives can be included in future work.

Further details about the work of the SSWB for EMSO can be obtained from:

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LIST OF USEFUL WEBSITES

Army – www.army.mod.uk

Atomic Weapons Establishment plc – www.awe.co.uk

AWE, the Atomic Weapons Establishment, provides the warheads for the United Kingdom nuclear deterrent. It is one of the largest high technology research, design, development and production facilities in the country.

BAE Systems – www.baesystems.com

BAE Systems is a global company engaged in the development, delivery and support of advanced defence and aerospace systems in the air, on land and at sea.

BECTU – www.bectu.org.uk

The Broadcasting Entertainment Cinematograph and Theatre Union (BECTU) is the independent union for those working in broadcasting, film, theatre, entertainment, leisure, interactive media and allied areas. The union represents permanently employed, contract and freelance workers who are primarily based in the United Kingdom, including those who use explosives in an entertainment context.

Cogent SSC Ltd – www.cogent-ssc.com

Jointly funded by industry and government, Cogent is the Sector Skills Council (SSC) for the Chemicals and Pharmaceuticals, Oil and Gas, Nuclear, Petroleum and Polymer Industries. It is one of 25 SSCs which, together with the Sector Skills Development Agency (SSDA), form the Skills for Business Network (SfBN).

Cranfield University at the Defence Academy of the United Kingdom –

www.dgmt.cranfield.ac.uk

Where experts from academia - Cranfield University - and Officers of the British Armed Forces meet to teach Defence Science, Technology and Management. The university is the academic provider and partner to the Defence Academy of the United Kingdom.

Chemring Group plc – www.chemring.co.uk

Chemring is a leading producer of expendable decoy countermeasures for protecting air, sea and land platforms against guided missile threats. Chemring designs, develops and produces energetic materials and sub-systems for military, OEM and safety customers, as well as safety systems, initiators, pyrotechnics, medium and large calibre ammunition, pyromechanisms and propulsion systems.

Defence Manufacturers' Association – www.the-dma.org.uk

The Defence Manufacturers' Association (DMA) aims to assist UK industry in benefiting from defence business at home and overseas.

Defence Science & Technology Laboratory – www.dstl.gov.uk

DSTL is a United Kingdom-based Ministry of Defence Agency providing services in defence research, consultancy and evaluation.

DefLog VQ Trust – www.vqtrust.org.uk

DEFLOG VQ Trust is a registered educational and charitable company established to provide soldiers, airmen and Royal Marines with opportunities to gain nationally recognised qualifications from their military education and training, mainly in logistics.

Health and Safety Executive – www.hse.gov.uk

Together with local government, the Health and Safety Executive (HSE) works as the enforcing authority of the Health and Safety Commission, which is responsible for health and safety regulation in Great Britain.

Homeland Security Qualifications – www.homelandsecurityqualifications.co.uk

Specializes in the development and award of explosives- and defence-related qualifications.

Institute of Explosives Engineers – www.iexpe.org

The Institute of Explosives Engineers (IExpE) aims to: promote the professional standing of those whose work involves explosives; provide technical support and assist in obtaining guidance for its members; maintain its own professional standing so that it takes its place alongside other specialized bodies; and provide technical consultative facilities for government departments and other external agencies within its field.

MBDA Missile Systems – www.mbda-systems.com

A major defence manufacturer providing missiles and missile systems to the Armed Forces.

Ministry of Defence (Defence Ordnance Safety Group (DOSG) –

www.mod.uk/dpa/projectservices/dosg/index.htm

DOSG is the MOD focal point for Ordnance, Munitions and Explosives (OME) Safety. DOSG provides policy, advice and regulatory functions on behalf of Secretary of State and monitors Departmental performance to provide assurance on OME safety to the Secretary of State.

Nobel Enterprises – www.nobel-enterprises.com

QinetiQ plc – www.qinetiq.com

QinetiQ is one of the world's leading defence technology and security companies, assisting governments to detect, identify and respond to both defence and homeland security threats through the most advanced technical capabilities science can offer.

Royal Air Force – www.raf.mod.uk

Royal Engineers Continuous Personal Development (RE CPD) – www.re-cpd.org.uk

The RE CPD Team is the operating arm of the RE Vocational Education & Training Trust (REVETT), a registered charity established to promote the efficiency of the Army and particularly the military efficiency of the Royal Engineers by promoting and supporting the involvement of its personnel in nationally recognised vocational educational and training schemes.

Royal Navy – www.royal-navy.mod.uk

Science Engineering & Manufacturing Technologies Alliance – www.semta.org.uk

An employer-led, UK wide charity owned by industry, it has been licensed by the Secretary of State for Education and Skills to drive forward the effort to improve the UK's productivity through improvements in its sector's skills base. SEMTA's remit includes aerospace; electrical engineering; electronics (including semi-conductors); explosives, munitions and search; mechanical engineering and metal trades; motor vehicles; shipbuilding; bio technology; nano technology; mathematics; forensic science.

Wallop Defence Systems – www.wallopdefence.com

Wallop Defence Systems manufactures a comprehensive and innovative range of pyrotechnic products for armed forces around the world.