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Safety & occupational health - General requirements

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Foreword

International standards for humanitarian demining programmes were first proposed by working groups at an international technical conference in Denmark, in July 1996. Criteria were prescribed for all aspects of demining, standards were recommended and a new universal definition of 'clearance' was agreed. In late 1996, the principles proposed in Denmark were developed by a UN-led working group and the International Standards for Humanitarian Mine Clearance Operations were developed. A first edition was issued by the UN Mine Action Service (UNMAS) in March 1997.

The scope of these original standards has since been expanded to include the other components of mine action and to reflect changes to operational procedures, practices and norms. The standards were re-developed and renamed as International Mine Action Standards (IMAS) with the first edition produced in October 2001.

The United Nations has a general responsibility for enabling and encouraging the effective management of mine action programmes, including the development and maintenance of standards. UNMAS, therefore, is the office within the United Nations responsible for the development and maintenance of IMAS. IMAS are produced with the assistance of the Geneva International Centre for Humanitarian Demining.

The work of preparing, reviewing and revising IMAS is conducted by technical committees, with the support of international, governmental and non-governmental organisations. The latest version of each standard, together with information on the work of the technical committees, can be found at <http://www.mineactionstandards.org/>. Individual IMAS are reviewed at least every three years to reflect developing mine action norms and practices and to incorporate changes to international regulations and requirements.

Introduction

The need to reduce risk and to provide a safe working environment are fundamental principles of mine action management. The International Labour Organisation (ILO) has established minimum norms and basic standards which regulate conditions of work and safety in the work place. These standards apply to all branches of economic activity and categories of employment, including mine action, unless specifically excluded by national legislation. Notwithstanding the legal requirements, mine action imposes a moral imperative and duty of care by managers at all levels.

It is necessary to clarify the meaning of the term 'safe' in respect of mine action. To say that a situation is safe does not necessarily imply that all risk has been removed. It merely assumes that the risk has been reduced to a 'tolerable' level, i.e. '... to a level which is accepted in a given context based on the current values of society'. (See ISO Guide 51.)

Managers of mine action programmes and projects are to achieve a safe working environment by providing effective management and supervision, by developing work practices that contribute to risk reduction, selecting equipment with inherently safe design, providing appropriate training, and making available effective Personal Protective Equipment (PPE) and protective clothing.

Given the wide range of operational settings and mine action activities, it is not possible to provide a precise and complete set of specifications or provisions that apply to all situations. Thus, mine action organisations should develop and maintain management procedures and processes that will enable Safety and Occupational Health (S&OH) risks to be identified, evaluated and reduced in a systematic and timely manner.

The aim of this standard is to provide guidance for the development and implementation of S&OH management systems for use in mine action. The document is in three parts: clause 1 to 3 define the scope, references and terms used in the standard; clause 4 and 5 define the requirements, specifications and responsibilities; and the Annexes provide additional detailed information and guidance on how the standard can be applied.

Safety & occupational health - General requirements

1. Scope

This standard provides specifications and guidance for the development and implementation of Safety and Occupational Health (S&OH) systems for use in mine action. It should be read in conjunction with IMAS 10.20, 10.30, 10.40 and 10.50:

- a) IMAS 10.20 provides specifications and guidance for S&OH on demining worksites;
- b) IMAS 10.30 provides specifications and guidance for PPE;
- c) IMAS 10.40 provides specifications and guidance for medical support to demining operations; and
- d) IMAS 10.50 provides specifications and guidance for the storage, transportation and handling of explosives.

2. References

A list of normative references is given in Annex A. Normative references are important documents to which reference is made in this standard and which form part of the provisions of this standard.

3. Terms, definitions and abbreviations

A list of terms, definitions and abbreviations used in this standard is given in Annex B. A complete glossary of all the terms, definitions and abbreviations used in the IMAS series of standards is given in IMAS 04.10.

In the IMAS series of standards, the words 'shall', 'should' and 'may' are used to indicate the intended degree of compliance. This use is consistent with the language used in ISO standards and guidelines:

- a) 'shall' is used to indicate requirements, methods or specifications which are to be adopted in order to satisfy the standard in full;
- b) 'should' is used to indicate the preferred requirements, methods or specifications; and
- c) 'may' is used to indicate a possible method or course of action.

The term 'National Mine Action Authority (NMAA)' refers to the government department(s), organisation(s) or institution(s) in each mine-affected country charged with the regulation, management and co-ordination of mine action. In most cases the national Mine Action Centre (MAC) or its equivalent will act as, or on behalf of, the 'NMAA'.

The term 'employer' refers to any organisation (government, NGO or commercial entity) responsible for implementing demining projects or tasks. The employer may be a prime contractor, subcontractor, consultant or agent.

The term 'employee' refers to people who work for an employer. Employees may be involved in management, operational or support activities.

4. Safety and Occupational Health (S&OH) system elements

4.1. General requirements

NMAA and employers (governments, NGOs and commercial entities) should establish and maintain S&OH management systems. Such management systems should distinguish between the obligations and responsibilities at the national level, and those of the employer and employee as proposed in ILO C155 and R164 (see Annex A) as set out below.

4.2. National responsibilities

The NMAA should establish a system to issue or approve regulations, codes of practice, SOPs or other suitable guidance on S&OH in the working environment in order to:

- a) provide information and advice, in an appropriate manner, to employers with a view to eliminating hazards or reducing them as far as practicable;
- b) co-ordinate activities concerned with S&OH which are exercised nationally, regionally or locally, by public authorities, by employers and their organisations and representatives, and by other persons or bodies concerned;
- c) undertake or promote studies and research to identify hazards to safety and health, and find means of overcoming them; and
- d) from time to time, review legislation concerning S&OH and the working environment in the light of experience and advances in technology.

NMAA should develop, implement and maintain S&OH management systems in accordance with national standards and guidelines. In the absence of appropriate national S&OH standards and guidelines, NMAA should use the OHSAS series of documents (see Annex A, Note 3). A summary of OHSAS 18002 is given at Annex C for reference.

4.3. Employers' responsibilities

Employers should:

- a) provide and maintain safe work places, machinery and equipment, and adopt safe work practices and procedures with a view to eliminating hazards or reducing them as much as practicable;
- b) provide adequate supervision and training (development and refresher training where appropriate);
- c) provide, at no cost to the employee, adequate PPE and protective clothing;
- d) provide, at no cost to the employee, adequate health care and emergency medical support in case of accidents;
- e) in accordance with national practice, appoint delegates and committees to represent the employee's views on S&OH matters. In this regard, provide such delegates and committees with access to appropriate information and advice;
- f) set out in writing a safety policy and arrangements, where appropriate in SOPs, and bring this information to the notice of every employee in a language or medium the employee readily understands;
- g) verify the implementation of applicable standards on S&OH and undertake systematic safety and health audits from time to time;

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- h) prepare and maintain safety records as are considered necessary by the NMAA or authorities, including records of notifiable occupational accidents and incidents; and
 - i) ensure that adequate insurance cover exists for all employees against death, disablement and injury.

Demining organisations (in their capacity as employers) should develop, implement and maintain S&OH management systems and plans in accordance with national standards and guidelines. In the absence of appropriate national S&OH standards and guidelines, demining organisations may use the OHSAS series of documents (see Annex A, Note 3) to assist them develop suitable systems and plans. A summary of OHSAS 18002 (Guidelines for the implementation of OHSAS 18001) is given at Annex C for reference.

In the absence of a NMAA or authorities, the employer should assume additional responsibilities. These include, but are not restricted to:

- a) issue, maintain and update their own regulations, codes of practice, SOPs and other suitable provisions on S&OH;
- b) co-operate with other employees in the same country to ensure consistency of standards; and
- c) assist the host nation, during the establishment of a NMAA, with assistance in framing national S&OH regulations and codes of practice.

4.4. Employees' responsibilities

ILO C155 and R164 acknowledge that employees have certain obligations with regard to S&OH. Employees should:

- a) take all reasonable care for their own safety and that of other persons who may be affected by their acts or omissions at work;
- b) comply with instructions given for their own conduct and safety;
- c) use safety devices and PPE consistently and correctly, and do not render them inoperative; and
- d) report to their immediate superior any situation which they have reason to believe could present a hazard and which they cannot themselves correct.

Annex A (Normative) References

The following normative documents contain provisions, which, through reference in this text, constitute provisions of this part of the standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of the standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid ISO or EN:

- a) IMAS 04.10 Glossary of mine action terms, definitions and abbreviations;
- b) IMAS 10.20 S&OH - Demining worksite safety;
- c) IMAS 10.30 S&OH - PPE;
- d) IMAS 10.40 S&OH - Medical support to demining operations;
- e) IMAS 10.50 S&OH - Storage, transportation and handling of explosives;
- f) ISO Guide 51, Safety aspects – Guidelines for their inclusion in standards;
- g) ILO C155, Occupational Safety and Health Convention (1981);
- h) ILO R164, Occupational Safety and Health Recommendation (1981);
- i) OHSAS 18001:1999, Occupational health and safety management systems – specification; and
- j) OHSAS 18002:2000, Occupational health and safety management systems – Guidelines for the implementation of OHSAS 18001.

The latest version/edition of these references should be used. GICHD hold copies of all references used in this standard. A register of the latest version/edition of the IMAS standards, guides and references is maintained by GICHD, and can be read on the IMAS website: (See www.mineactionstandards.org). NMAA, employers and other interested bodies and organisations should obtain copies before commencing mine action programmes.

Note: ISO Guide 51 defines the concepts of 'risk' and 'safety' and provides guidance for their use in other ISO documents. The definitions and procedures provided in Guide 51 are used in this standard and others in the IMAS series of standards and guidelines.

Note: The ILO is a specialist agency of the United Nations which seeks the promotion of human and labour rights. The ILO formulates international standards in the form of Conventions and Recommendations by setting minimum norms, including basic standards regulating conditions of work. (A Convention is a legal instrument which, when ratified by a Member State, becomes part of national legislation; a Recommendation provides guidance which Member States may follow.) Convention C155 and Recommendation R164 refer to certain proposals which aim to improve S&OH in the working environment. The two documents apply to '... all branches of economic activity and to all categories of workers'. In this regard, the term 'branches of economic activity' covers all activities which involve the employment of workers including public servants; 'work place' covers all places where workers need to be or to go by reason of their work and which are under the direct or indirect control of their employer.

Note: The Occupational Health and Safety Assessment Series (OHSAS) of documents provide general guidance for the development and implementation of S&OH management systems, and provide a standard against which such systems can be assessed and certified. OHSAS 18001 and 18002, which were developed by the British Standards Institute (BSI), have been adopted by several countries in the absence of an appropriate ISO standard. They provide appropriate guidance to NMAA for the development of national mine action standards.

Annex B (Informative) Terms, definitions and abbreviations

**B.1.
accident**

an undesired event which results in harm.

Note: Modified from definition in OHSAS 18001:1999.

**B.2.
demining worksite**

any workplace where demining activities are being undertaken.

Note: Demining worksites include workplaces where survey, clearance and EOD activities are undertaken including centralised disposal sites used for the destruction of mines and ERW identified and removed during clearance operations.

Note: Survey, in relation to a demining worksite includes general survey undertaken to identify mine and ERW hazards and hazardous areas.

**B.3.
harm**

physical injury or damage to the health of people, or damage to property or the environment. [ISO Guide 51:1999(E)]

**B.4.
hazard**

potential source of harm. [ISO Guide 51:1999(E)]

**B.5.
health**

in relation to work, indicates not merely the absence of disease or infirmity, it also includes the physical and mental elements affecting health, which are directly related to safety and hygiene at work. [ILO C155]

**B.6.
incident**

an event that gives rise to an accident or has the potential to lead to an accident.

**B.7.
insurance**

an arrangement for compensation in the event of damage to or loss of (property, life of a person).

Note: Insurance should include appropriate medical, death and disability coverage for all personnel as well as third party liability coverage.

Note: Such insurance need not necessarily have to be arranged through an insurance broker or company, unless otherwise required by contractual arrangements. Self insurance (underwriting) schemes, provided they are formally constituted on accepted actuarial principles and provide adequate cover, may be an acceptable alternative.

**B.8.
risk**

combination of the probability of occurrence of harm and the severity of that harm. [ISO Guide 51:1999(E)]

B.9.

safety

the reduction of risk to a tolerable level. [ISO Guide 51:1999(E)]

B.10.

tolerable risk

risk which is accepted in a given context based on current values of society. [ISO Guide 51:1999(E)]

B.11.

workplace

all places where employees need to be or to go by reason of their work and which are under the direct or indirect control of the employer. [ILO R164]

Annex C (Informative) Summary of OHSAS 18002

(Guidelines for the implementation of OHSAS 18001)

Safety and occupational health (S&OH) system elements

C.1. General requirements

Mine action organisations should establish and maintain a S&OH management system that conforms to all the requirements of clause 4 of OHSAS 18001. This system should include the elements outlined below.

C.2. S&OH policy

The organisation's S&OH policy should be clearly documented in Standard Operating Procedures (SOPs), and made known to employees, orally and in writing. It should be written in the official language of the host nation and other common regional languages used by employees. (For example, the policy developed for the Afghanistan mine action programme should be prepared in both Pushtu and Dari. It may be appropriate for documents to be developed and maintained in the language used by technical advisers during the initial stages of a mine action programme, in which case it should be briefed to employees orally.)

C.3. Planning

Planning should include establishing and maintaining documented policies and SOPs to include:

- a) planning for hazard identification, risk assessment and risk control. (SOPs should include procedures and work instructions for all mine action activities in the workplace including the activities of subcontractors and visitors to the workplace. It should also contain procedures for disease control and prophylaxis);
- b) legal and other requirements. (Demining organisations should strive to meet the standards of sector best practice);
- c) objectives. (Demining organisations should consider including objectives on the development of the S&OH system as well as the reduction of incidents and accidents. While it is generally agreed that establishing and maintaining discipline is an important element of safety on a demining worksite, demining organisations should establish and maintain SOPs that provide the opportunity for employees to contribute to the identification of problems and opportunities to improve safety in the workplace); and
- d) S&OH management programmes. (For mine action capacity development programmes, planning should include careful consideration of and balance between the requirements of the international community and those of the host nation.)

C.4. Implementation and operation

Implementation and operation should include establishing and maintaining documented plans and procedures for:

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- a) the S&OH management structure, including the identification and detailed responsibilities of the organisation's Safety Officer. (National capacity development organisations and capacity development projects should include planning for the early transfer of these responsibilities to the host nation);
 - b) training and awareness. (Should include training and periodic re-training on the S&OH management system and the responsibilities of all employees in the maintenance of their own safety and health, and in assistance in accident prevention and first aid. It should also include the identification and reporting of opportunities to improve S&OH. Capacity development projects should include formal training for staff in appointments with S&OH management responsibilities, such as safety officers and team leaders);
 - c) consultation and communication;
 - d) documentation. (SOPs should include documented procedures and work instructions for the implementation of the S&OH system. This includes reporting procedures that meet the requirements specified by the NMAA and other authorities as may be necessary);
 - e) document control of S&OH data;
 - f) operational control; and
 - g) emergency preparedness and response. (Demining organisations should place particular emphasis on the preparation of emergency response plans for demining work sites, and on their regular testing. This should include confirmation of the capacities and capabilities of the medical and casualty evacuation facilities identified in the plan.)

C.5. Checking and corrective action

Checking and corrective action should include establishing and maintaining plans and procedures for:

- a) S&OH performance measurement and monitoring;
- b) accidents, incidents and non-conformances (Demining organisations should establish and maintain documented SOPs that identify and deal separately with demining incidents, accidents and mine incidents and accidents. Standards for documentation and reporting of demining incidents and accidents are included in IMAS 10.60);
- c) corrective and preventative action, including control of disease;
- d) records and record management; and
- e) audit or monitoring.

Amendment record

Management of IMAS amendments

The IMAS series of standards are subject to formal review on a three-yearly basis, however this does not preclude amendments being made within these three-year periods for reasons of operational safety and efficiency or for editorial purposes.

As amendments are made to this IMAS they will be given a number, and the date and general details of the amendment shown in the table below. The amendment will also be shown on the cover page of the IMAS by the inclusion under the edition date of the phrase *'incorporating amendment number(s) 1 etc.'*

As the formal reviews of each IMAS are completed new editions may be issued. Amendments up to the date of the new edition will be incorporated into the new edition and the amendment record table cleared. Recording of amendments will then start again until a further review is carried out.

The most recently amended IMAS will be the versions that are posted on the IMAS website at www.mineactionstandards.org.

| Number | Date | Amendment Details |
|--------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 1 Dec 2004 | 1. Formatting changes. 2. Minor text editing changes. 3. Changes to terms, definitions and abbreviations where necessary to ensure that this IMAS is consistent with IMAS 04.10. |
| 2 | 1 Aug 2006 | 1. Minor changes/additions to the first and second paragraph of the foreword. 2. Inclusion of the term 'mines and ERW '. |
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