

LAO PDR NATIONAL UXO/MINE ACTION
STANDARDS (NS)



Chapter three
Training And Qualifications

**National Regulatory Authority for
the UXO/Mine Action Sector in Lao PDR**

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Training and Qualifications

1. Introduction

A high standard of training is essential for the development and maintenance of the capacity to carry out safe, effective and efficient UXO/mine clearance operations in Lao PDR. In order for a high standard of training to be provided, training should be:

- a. Properly designed, developed and structured to meet the needs of the task.
- b. Incorporated into a training plan that shows the objectives and the standards to be achieved.
- c. Delivered by qualified and experienced trainers.
- d. Formally assessed and the objectives and standards achieved by each student recorded in an appropriate form.

To ensure a high standard of training for UXO/mine clearance operations in Lao PDR it is necessary for the Lao PDR National Regulatory Authority (NRA) to set training standards for key UXO/mine action appointments and to specify requirements for the management and conduct of training.

2. Scope

This chapter details the minimum requirements for the management and conduct of training for personnel to be employed on UXO/mine action activities in Lao PDR.

Where applicable, additional specific training requirements for UXO/ MRE and UXO/mine VA are included in the relevant chapters of NS.

Training standards, which include core competencies, training objectives, instructor objectives and standards to be achieved during training, for key UXO/mine clearance appointments are included in the NS Support Document, '**NRA Training Standards for Lao PDR**'.

3. Types of Training

UXO/mine clearance training within Lao PDR may be one of two forms:

- a. Formal training. Formal training involves training delivered to a group of students for a finite period in a location away from an operational worksite. Formal training includes the assessment of objectives and the recording of results achieved. Formal training may also involve:
 - (1) Refresher training. Refresher training is used to maintain knowledge and skill levels that become degraded over time or through lack of use.
 - (2) Continuation training. Continuation training is training that builds on initial periods of training, providing additional knowledge or skill to the students.
- b. On the Job Training (OJT). OJT is normally ongoing and is carried out while the student is undertaking operational duties commensurate with their current level of knowledge and skill.

This NS will focus on the management and conduct of formal training.

4. UXO/Mine Clearance Training in Lao PDR

UXO/mine clearance training in Lao PDR may be carried out through the central training facility, or by individual clearance organisations.

Training conducted through the central training facility will be on a 'cost recovery' basis and organisations may select the components of the centralised training that they wish to send their staff on, provided that this does not compromise the management or cost-effectiveness of the training. In addition, organisations may conduct their own 'specific to organisation' training at the central training facility, also on a 'cost recovery basis', provided this does not compromise the management of the central training facility or clash with other training courses.

Specific information concerning the management of the central training facility, including the training services provided and procedures for obtaining training support are to be prepared and distributed to clearance organisations by the management of the central training facility.

5. Notification to the NRA

Clearance organisations, including the central training facility, intending to conduct formal training courses are to notify the NRA of this intention at least one month in advance of the training commencing. This notification is to include the type and content of training, duration of training, number of trainees and the location(s) for the training.

The NRA may then call for further details if required and arrange monitoring visits. If monitoring visits are planned the NRA will formally notify the organisation concerned with relevant details.

Note: [Chapter 24 of NS 'Information Management'](#) also requires UXO/mine action organisations to include training in their work plans.

6. Management of Training

The following sections detail the minimum requirements for the management of formal training by clearance organisations and the central training facility

6.1. Training Management Packages (TMPs)

Proper Training Management Packages (TMPs) are to be developed for each period of formal training to be carried out. As a minimum TMPs are to include:

- a. Training objectives, including standards to be achieved.
- b. Course programme.
- c. Details of training reference materials.
- d. Formal tests and assessments.
- e. Where applicable, details for the management of practical exercises.
- f. Administrative requirements including:
 - (1) Training aids and materials.
 - (2) Equipment.

- (3) Medical support.
- (4) Communications.
- (5) Explosives and explosive-filled UXO requirements.

Note: TMPs do not include lesson plans or individual lesson instructional aids such as power point presentations. These are an individual instructor's responsibility to prepare based on the information contained in TMPs.

Some of the information required in TMPs covering core competencies for key appointments is included in the NS Support Document, '**NRA Training Standards for Lao PDR**'.

6.2. Qualifications and Experience of Training Staff

All training staff are to have appropriate and relevant qualifications and experience to provide effective training. The NRA may at any time require clearance organisations to provide details of the qualifications and experience of their training staff.

6.3. Selection of Students

Clearance organisations are to ensure that personnel selected to attend formal training courses are medically and mentally suitable and have the prerequisite knowledge and skills necessary for them to assimilate the objectives taught on the particular course.

Minimum medical requirements for certain UXO clearance occupational groups are covered in [Chapter 16 of NS, 'Medical Support to UXO Clearance Operations'](#).

6.4. Training Equipment and Materials

Equipment and materials to be used during formal training are to be the same as those used on actual operations. Their use is to conform to the same safety requirements as those applicable to operations.

6.5. Training UXO

The use of training UXO is to be strictly controlled to avoid incidents. The use of inert, drill, instructional or replica UXO is to be in accordance with the requirements of [Chapter 22 of NS, 'Storage, Transportation and Handling of Explosives'](#).

6.6. Training Facilities and Areas

Training must be done safely without risk of harm to the students, training staff or the local population. All initial training should be carried out in areas known or proven to be safe. Only after initial training is complete, and a satisfactory level of competence has been achieved, is it permissible for further training to continue in contaminated areas.

Consideration must always be given to the safety of the local population when conducting training; especially that which involves the use of live explosives or UXO.

6.7. Validation of Training

Internal validation of formal training courses should be carried both during and on completion of the course. Internal validation may include:

- a. The regular assessment of instructors on their general instructor skills and methods of instruction. Assessment should be against an objective checklist and cover both theory and practical lessons.
- b. Student feedback sessions at the end of each formal training course to discuss the completed course and provide feedback on relevant topics. The feedback session should be overseen by a staff member not involved with the management or conduct of the course. Topics covered may include:
 - (1) Course administration.
 - (2) Course content.
 - (3) Instructor knowledge and skills.
 - (4) Training equipment.
 - (5) Training facilities.
 - (6) Student support.
- c. Visits to UXO/mine clearance operations by training staff to discuss training with the clearance supervisors and ex-students themselves.

As a result of validation the training provider should consider whether any adjustments are necessary to training courses or future training.

Where practicable, training providers should also carry out external validation of formal training courses. Further details on external validation are included in [IMAS 06.10 'Management of Training \(Draft\)'](#).

7. Monitoring (External QM) of Training

Monitoring of formal training courses, whether conducted at the central training facility or by clearance organisations, may be carried out by external QM teams from or controlled by the NRA, while the course is in progress. Monitoring of training is carried out to ensure that the training is being delivered correctly, that it is being conducted in accordance with the relevant TMP and that it delivers the required objectives.

The monitoring may include:

- a. Confirmation that the TMP is being followed and objectives are being properly covered.
- b. Assessment of instructors conducting lessons.
- c. Feedback sessions with students to identify any problems with the training.
- d. Assessment of the standards being achieved by the students.

On completion of monitoring the external QM inspection team leader is to debrief the course manager on the results. The debrief will be against the standard training monitoring report included in the NS Support Document '[NRA Quality Management Procedures for Lao PDR](#)'. The course manager is to acknowledge receipt of the debrief by signing the report.

When monitoring identifies deficiencies in training, the training provider will be required to correct those deficiencies as a matter of urgency.

After completion of training monitoring, the external QM inspection team leader will forward a copy of the training monitoring report, and any other relevant documentation, to the headquarters of the clearance organisation concerned.

All original copies of external QM inspection documentation, including that of any follow-up action, are to be retained by the NRA.

8. Competencies for UXO/Mine Clearance Appointments

Within the UXO/mine clearance sub sector in Lao PDR there should be consistency in the core competencies taught, and the standard of training provided for key UXO/mine clearance personnel and support staff, specifically clearance technicians (including mine clearance technicians) and trauma medics. In order to achieve this, training for these appointments must, as a minimum, include training in the core competencies and objectives, and to standards as specified in the NS Support Document, '**NRA Training Standards for Lao PDR**'. These training standards also include training requirements for certain additional specialist skills that may be taught to clearance personnel.

8.1. Competency Training

Competencies are to be delivered in properly designed, developed and objectivised training and formally assessed to a standard whereby the student can satisfactorily carry out the competency on the worksite. TMPs are to be developed for this training.

Training providers are to ensure that students undergoing any period of training have the requisite knowledge and skill prior to any training commencing. Where necessary, this may include entry testing.

There is no requirement for core competency training to be delivered in one period, training may be broken into modules by the training provider as required.

Core competency training may be carried out as formal training or as OJT.

Clearance organisations may add other (non core) competencies or choose not to train personnel in some of the core competencies to suit the nature of their operations, however training reports (see section 8.2 below) must clearly indicate the core competencies taught and those not taught. The only exception to this is for the appointment of trauma medics who must be trained, or previously qualified, in all of the core competencies indicated in the training standards.

8.2. Management of Training Records

Core competency training is to be recorded on the training reports included in the NS Support Document, '**NRA Training Standards for Lao PDR**'. A separate report is included for each appointment covered by core competencies and the report form also includes relevant specialist skills. Spaces are also included on the report for providing details of additional training that may have been carried out.

Clearance organisations (including the central training facility) carrying out core competency training are to complete one report for each individual undergoing the training. When training in some core competencies (or specialist skill) is not carried out, the training report is to clearly indicate against the particular competency that no training was provided. Details of any additional training carried out are also to be included on the reports.

Copies of all core competency training reports are to be forwarded to the NRA on completion of the training to permit the details to be included in the training and qualifications database. Original copies are to be maintained by the training provider.

Note: When core competency training includes training on equipment such as metal detection equipment, survey equipment or radio equipment, training records are to include details of the types of equipment the training covered.

8.2.1. Maintenance of Records by Training Providers

In addition to the requirement to maintain core competency training reports, organisations providing training are to maintain records of all other training carried out, irrespective of whether this is through formal training or OJT. Such records are to include details of the training received and the standard achieved by each student. If an organisation ceases to work in Lao PDR, then the training records are to be transferred to the NRA.

8.2.2. Training Certificates

Organisations that conduct formal training courses are to provide a certificate to each student that successfully completes the training course. Certificates are to include student details, the dates of the training and general details of the training received and the standard achieved by the student.

9. Time Bars

Time bars for clearance technicians are imposed to ensure that personnel selected for a higher appointment have the necessary level of experience for the appointment. The NS Support Document '[NRA Training Standards for Lao PDR](#)' includes minimum time bars for clearance technicians to be promoted to the next higher level.

For time bars to be effective personnel working under time bars must be carrying out actual UXO/mine clearance tasks, not other duties. To ensure this, time bars are based on working months (on clearance tasks) not calendar months.

Often, external constraints make the management of time bars difficult and it is necessary for personnel to be promoted ahead of time. This is permissible in isolated cases only, under the following conditions:

- a. The individual concerned is not permitted to assume the full duties of the higher appointment immediately. To achieve this clearance organisations are to either:
 - (1) Provide a heightened level of supervision for the individual concerned until the time bar period has elapsed.
 - (2) Limit the duties that the individual can perform unsupervised, for example the conduct of demolitions.
- b. Further time bars for higher appointments should only commence once the initial time bar has elapsed.

10. Recognition of Previous Training and Qualifications

The NRA is the authority for the recognition of previous training or qualifications. This covers training or qualifications other than those obtained on formal training courses or OJT conducted by the central training facility or an accredited clearance organisation operating in Lao PDR.

Clearance organisations wishing to have previous training or qualifications of their staff recognised are to submit a request to NRA for this recognition. The request is to be accompanied by copies of all relevant documentation such as training course reports and certificates.

The NRA will ensure that personnel responsible for determining the suitability of previous training and qualifications for recognition, have the necessary qualifications and experience for this task.

11. Mine Clearance Training

Clearance technicians trained and qualified to carry out UXO clearance operations are not to be employed on mine clearance operations without retraining in mine clearance operations. The retraining is to be in accordance with the requirements contained in **Chapter 12 of NS, 'Mine Clearance Operations'**.

Ideally, mine clearance technicians should be staff dedicated to carrying out mine clearance only.

12. Specialist Training Requirements

The following sections cover the specialist training requirements for Explosive Detection Dog (EDD) and mechanical operations

12.1. Explosive Detection Dog (EDD) Training

Clearance organisations employing EDD are to establish detailed procedures for the training and retraining of EDD teams and staff. These training procedures are to ensure that:

- a. All EDD are capable of working in the local environment and in detecting the range of UXO found in Lao PDR.
- b. EDD handlers are capable of effectively, efficiently and safely handling and supporting EDD in the range of operating environments within Lao PDR.
- c. All personnel employed as EDD clearance technicians in support of EDD UXO clearance operations are to have as a minimum, a level 1 EOD qualification in accordance with **Chapter 8 of NS 'Explosive Ordnance Disposal (EOD)'**.
- d. EDD supervisors are qualified and experienced EDD handlers and clearance supervisors.

Training of EDD teams must be carried out in conditions as close as possible to the actual environments in which the EDD teams will work. Training areas prepared for training of EDD teams must have UXO:

- a. Common to Lao PDR.
- b. Containing different types and quantities of explosives.
- c. Buried at different depths.
- d. Buried and undisturbed for a period of at least three weeks.

When EDD are employed in the field, routine internal refresher training of EDD is to be conducted by the handlers. The routine internal refresher training is to conform to the requirements of the organisation's SOPs.

EDD training requires the use of specialised facilities and areas and the use of 'safe to handle and move' UXO with explosives still in place. The selection, design and construction of EDD training and testing facilities is to be in accordance with the requirements of **IMAS 09.42 'Operational Accreditation of MDD (Draft Edition 2)'**.

The use of explosive-filled UXO used for EDD training and testing is to be in accordance with the requirements of **Chapter 22 of NS, 'Storage, Transportation and Handling of Explosives'**.

Formal accreditation of EDD teams is to be carried out at least every 6 months in accordance with the NS Support Document '**NRA Accreditation Procedures for Lao PDR**'.

12.2. Mechanical Training

Mechanical operations require personnel with specialist knowledge and skill. The training requirements for these personnel are shown below.

12.2.1. Mechanical Clearance Technicians

All personnel employed as mechanical clearance technicians must be qualified level 1 clearance technicians. Further mechanical clearance technician training is to be provided through OJT with specific training provided for each machine to be supported. OJT for mechanical clearance technicians is to include, as a minimum:

- a. Mechanical clearance technician responsibilities.
- b. An introduction to the operating procedures for the machine.
- c. The marking of the clearance worksite. This may be machine specific.
- d. Accident response procedures including the extraction of a casualty from the machine.
- e. Drills for ensuring the identification and location of any UXO 'throw outs'.
- f. Drills for checking that no UXO have been caught up in the machine's working parts.
- g. Procedures in the event of a mechanical breakdown.
- h. Procedures in the event of a fire on the machine.

12.2.2. Mechanical Operators

Generally, personnel recruited to be mechanical operators will already have the skills necessary to operate a machine. This is to be determined during the recruitment process. Further OJT specific to the machine and the mechanical operations to be undertaken is then to be provided to the mechanical operator. As a minimum this training is to include:

- a. Mechanical operator responsibilities.
- b. The operating procedures for the specific machine.

- c. The marking of the clearance worksite. This may be machine specific.
- d. Actions of the operator on:
 - (1) The detonation of a UXO.
 - (2) Identifying an object that may be a UXO.
- e. Emergency response procedures including:
 - (1) Accident response procedures.
 - (2) Mechanical breakdown procedures.
 - (3) Fire drills.
- f. Use and maintenance of basic communication systems.
- g. The preparation and maintenance of work records for the machine.

13. Operational Communication Training

All radio users employed on clearance operations are to receive training in the use and maintenance of the communication systems they are to use. This training is to include:

- a. The basic principles of how the communication systems work.
- b. Operation and user-level maintenance of the communication systems to be used.
- c. Radio Telephone Procedures (RTP).
- d. Operational communication requirements. These are included in [Chapter 17 of NS 'Communications'](#).
- e. Accident reporting procedures.

Clearance organisations are responsible for ensuring that this training is conducted for their staff and for maintaining records of this training.