



ONR GUIDE			
Licence Condition 10 – Training			
Document Type:	Nuclear Safety Technical Inspection Guide		
Unique Document ID and Revision No:	NS-INSP-GD-010 Revision 3		
Date Issued:	January 2021	Review Date:	December 2022
Approved by:	Kulvinder McDonald	Operational Inspection Professional Lead	
Record Reference:	CM9 Folder 1.1.3.979. (2020/120044)		
Revision commentary:	Update to explain interactions between safety and safeguards inspections under the topics covered by this licence condition.		

TABLE OF CONTENTS

1	INTRODUCTION	2
2	PURPOSE AND SCOPE	2
3	LICENCE CONDITION 10: TRAINING.....	2
4	PURPOSE OF LICENCE CONDITION 10	3
5	GUIDANCE ON ARRANGEMENTS FOR LC10.....	3
6	GUIDANCE ON INSPECTION OF ARRANGEMENTS AND THEIR IMPLEMENTATION..	3
7	FURTHER READING	8

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 Published 01/21

1 INTRODUCTION

- 1.1 Many of the Licence Conditions attached to the standard Nuclear Site Licence require, or imply, that Licensees should make arrangements to comply with regulatory obligations under the Licence conditions. ONR inspects compliance with Licence Conditions, and with the arrangements made under them, to judge the suitability of the arrangements made and the adequacy of their implementation. Most of the standard Licence Conditions are goal setting, and do not prescribe in detail what the Licensees' arrangements should contain; this is the responsibility of the duty-holder who remains responsible for safety. To support inspectors undertaking compliance inspection, ONR produces a suite of guides to assist inspectors to make regulatory judgements and decisions in relation to the adequacy of compliance, and the safety of activities on the site. This inspection guide is one of the suite of documents provided by ONR for this purpose.

2 PURPOSE AND SCOPE

- 2.1 The purpose of this guidance is to promote a consistent approach to Licence Condition 10 (LC10) Training compliance inspection and to provide a framework for LC10 inspection activities, within which inspectors are expected to exercise their discretion. This guide complements Technical Inspection Guide (TIG) 12 and should be used in conjunction with TIG12.
- 2.2 The guidance should not be regarded as either comprehensive or mandatory. Further guidance is also available in the relevant Technical Assessment Guide (TAG) 27 for Training and Assuring Personnel Competence (NS-TAST-GD-027) (Ref. 1).
- 2.3 The guidance provided is divided into 4 main elements:
- 1) Purpose of the Licence Condition.
 - 2) Guidance on arrangements for LC10.
 - 3) Guidance on inspection of arrangements.
 - 4) Guidance on inspection of implementation of arrangements
- 2.4 Inspectors may also take account of relevant requirements in The Nuclear Safeguards (EU Exit) Regulations 2019 (NSR19) and the associated ONR Guidance for Nuclear Material Accountancy, Control and Safeguards (ONMACS). For roles that have safeguards and safety functions, LC 4 roles for example, there are links with ONR Safeguards expectations. Guidance on the safeguards-relevant aspects of LC 10 is provided in the Safeguards appendix of this document.

3 LICENCE CONDITION 10: TRAINING

- 10(1) The Licensee shall make and implement adequate arrangements for suitable training for all those on site who have responsibility for any operations which may affect safety.
- 10(2) The Licensee shall submit to ONR for approval such part or parts of the aforesaid arrangements as ONR may specify.
- 10(3) The Licensee shall ensure that once approved no alteration or amendment is made to the approved arrangements unless ONR has approved such alteration or amendment.

4 PURPOSE OF LICENCE CONDITION 10

- 4.1 The purpose of this Licence Condition is to ensure that all those people on the site who have responsibility for any operations which may affect safety are adequately trained for that purpose. It applies to all Duly Authorised Persons (DAP) and other Suitably Qualified and Experienced Persons (SQEP) required by LC12, including those in managerial positions, contractors, and suppliers, where their duties may affect safety.
- 4.2 It should be recognised that training forms part of a competence management system (see TAG 27) and consequently the training needs of individuals may vary to reflect previous experience and competencies.

5 GUIDANCE ON ARRANGEMENTS

- 5.1 Inspection of a Licensee's training arrangements and programme should seek to provide the inspector with assurance that the training arrangements and programme are contributing to producing competent staff who are able to conduct operations which could affect nuclear safety.
- 5.2 LC 10 arrangements should identify the role(s) responsible for ensuring compliance with this Licence Condition and the role(s) responsible for managing the training function.
- 5.3 LC 10 arrangements should support the Licensee's LC36 arrangements for developing and maintaining its nuclear baseline. LC36 arrangements should identify roles, at all levels in the organisation, which may affect safety. The LC10 arrangements should support this by identifying the competences necessary to discharge these roles.
- 5.4 Many processes can be used to implement LC 10. Current relevant good practice for training and competence is the Systematic Approach to Training (SAT) (Ref. 4) that can be found by searching the IAEA website for TechDoc 380. SAT is an example of a process that can be used to provide suitable training for those who have responsibility for any operations which may affect safety.
- 5.5 Inspectors should note that Licensees may have developed their own unique training programme and these unique programmes should be assessed on a case-by-case basis. If a detailed inspection of a Licensee's arrangements is required, a human factors specialist inspector should be requested and the inspection conducted in line with TAG 27 (Ref. 1).
- 5.6 The arrangements should ensure that the Licensee's approach to LC 10 is systematic and effective in its results. The key elements to achieving this are described in Section 6.3 below.
- 5.7 If the Licensee chooses a third party training provider to deliver training, then the Licensee's arrangements should address monitoring the third party training provider to seek assurance that the training provider is meeting the training requirements of the Licensee and the training programme is effective in developing suitably qualified and experienced staff.
- 5.8 Participation in formal training courses does not in-itself result in achieving competence. To achieve the desired competencies, practical application of knowledge and/or skills gained should be sought, along with other development activities such as coaching or role sharing. Consequently a Licensee's competence management arrangements should ensure that training is then supported by appropriate activities to ensure competence is achieved.

5.9 This guidance is designed to assist inspectors in judging the adequacy of the Licensee's arrangements and their implementation. This guidance can be applied, in whole or in part, during routine inspections and applied entirely to LC 10 inspections.

5.10 It is recommended that LC10 and LC12 compliance inspection are conducted in conjunction with one another due to the significant overlap between the two topic areas. Further guidance is also available in Technical Assessment Guide 27.

6 GUIDANCE ON INSPECTION OF ARRANGEMENTS

6.1 The guidance contained in this section is provided to assist inspectors in judging the adequacy of the Licensee's arrangements. A list has been provided below of LC10 compliance requirements that might be examined during routine inspections carried out on the basis of sampling. The list is neither exclusive nor exhaustive.

6.2 This part of the guidance identifies key elements that should be present in an effective training programme. The inspector should normally inspect against these key elements, as being closely aligned to the wording of the Licence Condition, or as being important regulatory expectations to the goal setting aspects of the Licence Condition. This part of the guidance also identifies supporting elements, which the inspector may also choose to cover within the inspection scope.

6.3 Inspectors should endeavour, through a sampling approach, to review the arrangements against the following elements and identify which elements have been considered¹:

KEY ELEMENTS

- i. Jobs/roles that may affect safety should be identified and defined in the nuclear baseline as part of the Licensee's arrangements under LC36. The LC10 arrangements should identify the competencies² that are required for those jobs/roles.
- ii. The arrangements should ensure that there is a process to develop training programmes for jobs/roles identified which may affect safety. This process should include:
 - o Identification of training needs and of the competencies required to perform a particular job/role
 - o Identification of training objectives linked to the competencies identified above
 - o Preparation of training material so that the training objectives can be achieved
 - o A process to conduct training using the training material developed, and
 - o An evaluation of the training programme, which could lead to training programme and plant improvements.

¹ This will enable a record to be made of the elements inspected and allow a consistent approach towards inspection of the Licensee. This will also allow information to be easily collated for OPEX

² Competencies refers to all the knowledge, skills and attitudes required for that role.

- iii. The arrangements should ensure that there is a suitable method for assessing the trainee following a training course, that should test the understanding of the learning and its application whether through classroom tests, supervised demonstrations, or a combination of methods.
- iv. The arrangements should allow for regular reviews of the training programme to determine the effectiveness, efficiency and impact of training programmes and to identify whether and where revision or improvements are needed.
- v. There should be a training and competence management system (or similar) for managing and recording the training of personnel whose actions may affect safety. Training records should be managed in line with the Licensee's arrangements for LC6.
- vi. The Licensee's arrangements should make provision for submission of part or parts of the arrangements to ONR for approval as specified by ONR.

SUPPORTING ELEMENTS

- i. The arrangements should ensure that there is a method of re-assessment with appropriate periodicity, with the competence assessment preferably being completed by a person independent of the training function.
- ii. The arrangements should ensure that regular reviews of the training records are made to ensure that individuals' training remains valid and to identify candidates for retraining.
- iii. The arrangements should provide a method of remedial action for staff who do not meet the required level of competence.
- iv. The arrangements should provide for a training function that can develop and deliver training programmes, or alternatively for an external training provider who is capable of meeting the Licensee's needs for development and/or delivery.

7 GUIDANCE ON INSPECTION OF IMPLEMENTATION OF ARRANGEMENTS

- 7.1 The guidance contained in this section is provided to assist inspectors in judging the adequacy of the Licensee's implementation of their arrangements. A list has been provided below of LC10 compliance requirements that might be examined during routine inspections carried out on the basis of sampling. The list is neither exclusive nor exhaustive.
- 7.2 This part of the guidance identifies key elements . The inspector should normally inspect against these elements, as being closely aligned to the wording of the Licence Condition, or as being important regulatory expectations to the goal setting aspects of the Licence Condition. This part of the guidance also identifies supporting elements, which the inspector may also choose to cover within the inspection scope.

- 7.3 Inspectors should endeavour, through a sampling approach, to review the implementation of the arrangements against the following elements and identify which elements have been considered³:

KEY ELEMENTS

- i. Check that jobs/roles that may affect safety have been identified and that the competence requirements are reflected in job/role responsibilities.
- ii. Check, for a sample of jobs/roles identified above, that specific training for that job/role has been identified, developed and delivered, and will achieve the competency level required by:
 - a) Checking that the Training Programme(s) contains relevant training objectives, training schedules for initial and continual training, entry-level requirements and competence tests to ensure personnel competence is developed and maintained⁴
 - b) Checking that Training Material, e.g. course notes, hand outs, study guides, etc., is relevant to the training programme/course and broadly contains the required information and make a judgement on their suitability for achieving competence in the task(s) involved.
- iii. Check, by examining the training programme and records for jobs/roles identified above, that individuals are successfully completing the training identified for their job/role. Consider checking that individual has completed all training required for their role/job and is considered competent prior to conducting the work.
- iv. Check if training requirements are being met and that operational requirements are not causing significant delays in achieving training programme objectives, this can be achieved through conversing with the Licensee's training function that should have oversight of attendance and reasons for non-attendance.
- v. Check that regular reviews of the training programme are being conducted and that findings from the evaluation of the training programme are being used by the Licensee to identify if the programme is working to develop competent staff and identify improvements in the training programme or plant/facility.

SUPPORTING ELEMENTS¹

- i. In addition to Training Needs Analysis, check that other sources of information are being used to identify the training required for specific jobs/roles e.g. safety case analyses, operator experience, information on changes to plant/facility/organisation and operational intelligence.

³ This will enable a record to be made of the elements inspected and allow a consistent approach towards inspection of the Licensee. This will also allow information to be easily collated for OPEX

⁴ Specific Human Factors support should be requested for an in-depth assessment of the Licensee's training programme.

- ii. Check that the training media is appropriate for that specific training course/programme by reviewing the content of operator handbooks, hand-outs, etc.
- iii. Check that instructors have relevant experience on the topic they are teaching and have undertaken some form of instructor training programme (internally or externally).
- iv. Sit in on a session of classroom training and make a judgement on the overall effectiveness of the content and presentation of the training and the reaction of the trainees to the training.
- v. Check that there is a structured training plan e.g. course objectives, location/setting of the training, training modules schedule, test items, developed course material.
- vi. The training function should be appropriately resourced to deliver the training programme and its objectives.

8 FURTHER READING

1. Training and Assuring Personnel Competence – NS-TAST-GD-027
2. Licensee management of records – NS-TAST-GD-033
3. Technical Inspection Guide 12 - Duly authorised and other suitably qualified and experienced persons
4. Nuclear Power Plant Personnel Training and its Evaluation – Technical Report Series No. 380 – IAEA – [click here](#)
5. Organisational Capability - NS-TAST-GD-048
6. Licensee use of contractors and intelligent customer capability - NS-TAST-GD-049

APPENDIX – SAFEGUARDS

Many of the expectations for LC 10 arrangements in this guidance are applicable to compliance with NSR19 and expectations within ONMACS [\[link\]](#). NSR19 does not contain explicit requirements regarding training of safeguards staff, only that defined roles and responsibilities be assigned and communicated. Expectations for training of safeguards staff are found in ONMACS Fundamental Safeguards Expectation (FSE) 3, “Competence Management”. For safeguards purposes the term SQEP is used for personnel with roles that have direct operational responsibility for nuclear material in a facility.

Safeguards training expectations can only be considered relevant to LC 10 where the role affects both safeguards and safety. For this reason the inspectors should carefully consider the scope of any joint inspection that focuses on both LC 10 and training for safeguards roles. Inspectors should also note the definition of “qualifying nuclear material” (QNM), for safeguards. QNM is defined in the Nuclear Safeguards Act 2018 and Nuclear Safeguards (Fissionable Material and Relevant International Agreements) (EU Exit) Regulations 2019 as natural uranium, depleted uranium, uranium enriched to less than 20%, uranium enriched to 20% or above, thorium and plutonium. Where a joint inspection is appropriate the inspectors should consider the key synergies between the Material Accountancy and Control Expectations (MACEs) 3.1-3.4 and this TIG listed below:

MACE 3.1 – Role identification and training needs analysis is expected for both safety and safeguards, MACE 3.1 defines these expectations from a safeguards perspective. It is in alignment with some of the Key Elements of paragraph 6.3 of this TIG concerning the task-analysis of roles.

MACE 3.2 – Following task-analysis in MACE 3.1, the operator is expected to define learning objectives which inform the development of a set of training needs. These objectives are then used to derive the criteria, or standards, against which the trainee is assessed during and/or after training (see MACE 3.3 for assessment). For dual purpose roles some of learning objectives may be the same across both functions and so this part of ONMACS ties in well with some of the Key Elements of paragraph 6.3 of this TIG.

MACE 3.3 – Measurement of competence follows from the identification of training needs and learning objectives. Operators are expected to be able to demonstrate that the learning objectives for safeguards roles have been met. This aligns with expectations in Key Elements under paragraph 6.3 of this TIG; “arrangements should ensure that there is a suitable method for assessing the trainee following a training course”.

MACE 3.4 – This section of ONMACS concerns organisational support of the training function; it aligns with supporting element iv of paragraph 6.3 of this TIG. For roles which impact both safety and safeguards, the same training function is likely relevant to both purposes. Elements of this function that might impact both safety and safeguards include:

- Management of the function
- Commitment in policy to maintaining required competence levels
- Ensuring the function is adequately resourced
- Active identification of training needs
- Training records

Inspectors may also wish to consider the links between FSE 3 and the LC 12 TIG which are listed in a similar appendix in NS-INSP-GD-012.