

## NUCLEAR SAFETY DIRECTORATE - BUSINESS MANAGEMENT SYSTEM

### SITE INSPECTION AND ENFORCEMENT LC10: INSTRUCTIONS & TRAINING

**T/INS/010**

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## 1. Purpose and Scope

1.1 This guidance has been prepared as an aid to inspection activities carried out by HM Nuclear Inspectors at Nuclear Installations in judging the Licensees compliance with the requirements of LC 10. This guidance provides a framework for these inspection activities within which the Inspector is expected to exercise his/her discretion. This framework is provided to facilitate a consistent approach to LC 10 compliance inspection.

1.2 The guidance is for use by all Nuclear Inspectors in NSD. The guidance does not indicate when or to what extent LC 10 inspections should be carried out as these matters are covered in individual inspectors inspection programmes.

1.3 The guidance provided is split into four main elements:

- 1) Purpose of the Licence Condition
- 2) Guidance on arrangements for LC 10.
- 3) Guidance on Inspection of Arrangements.
- 4) Guidance on Inspection of Implementation of Arrangements.

## 2. Licence Condition

### 2.1 LICENCE CONDITION 10 - INSTRUCTIONS AND TRAINING

10(1) The licensee shall make and implement adequate arrangements for suitable training of all those on site who have responsibility for any operations which may affect safety.

10(2) The licensee shall submit to the Executive for approval such part or parts of the aforesaid arrangements as the Executive may specify.

10(3) The licensee shall ensure that once approved no alteration or amendment is made to the approved arrangements unless the Executive has approved such alteration or amendment.

### **3. Purpose of Licence Condition**

3.1 LC 10 is a standard condition attached to all Nuclear Site Licences. Nuclear site Licensees are required to comply with the LC. How this compliance is achieved is for the Licensees to decide. However, NSD must judge the adequacy of this compliance. It carries out this function by compliance inspection.

3.2 The purpose of this Condition is to ensure that all those people on the site who have responsibility for an action which may affect safety are adequately trained for that purpose. This Condition is an additional requirement to s2(2)(c) of the HSW Act and regulation 14(a) of the IRRs. This Condition covers not only those who "control and supervise" operations which may affect safety but also extends to persons actually carrying out such operations. It therefore applies to all duly authorised persons and other suitably qualified and experienced persons required by Condition 12.

3.3 In order to comply with this Condition, the licensee will need to identify a department or persons with training responsibilities but in all cases the responsibility for ensuring adequacy of an individual's training remains with the line manager concerned. Although the complexity of the training function will depend upon the site, the arrangements should specify the interfaces between it and other departments as well as any off-site or bought in training employed. The structure, resources and remit of the training function should be stated and the competencies required of trainers should be addressed.

3.4 Training in respect of persons having duties under the Emergency Arrangements required by Condition 11 is covered by that condition rather than Condition 10. However, the licensee's arrangements should ensure that training under both Conditions is consistent. The instruction of persons not having duties under the emergency arrangements, as regards the action to be taken in an emergency is covered by Condition 9.

3.5 The arrangements should require the production of a comprehensive schedule or programme for each person or group of persons on the site, in which the training requirements for each post are specified. However, responsibility for ensuring that persons are trained lies with their manager. Topics for inclusion in a general training programme include: induction, site familiarisation, general health and safety, radiation and hazardous substances and, incident

and emergency responses. In addition, there will be a need for job and post specific training, some of which may take place in the workplace. Conditions 19-22 and 35 may also have a training element in them which should be considered by inspectors.

3.6 Means of achieving the training requirements should be defined in the arrangements and should indicate required training modules including, where appropriate, on-job training, off-job training and self study. The arrangements should also include consideration of the resources needed to complete the training programme, such as simulators, mock-ups and test rigs. Each type of post should have an appropriate type of training guide, together with check sheets that record an individual's progress through the training programme.

3.7 The effectiveness of the training programme should be determined by assessing trainees after each module and also on completion of the programme. Where appropriate, such assessment should preferably be completed by a person independent of the training function. The training arrangements should address any shortfalls in competencies and also include refresher training relevant to the post. Successful completion of the training should be confirmed and records kept.

3.8 LC10(1) provides for the making and implementing of arrangements.

LC10(2) gives the power to the Executive to **specify** the arrangements or parts of arrangements for **approval**. This power would be used when first these arrangements were made, not for subsequent alterations. Specifications and Approvals are rarely used for this LC.

LC10(3) ensures that where the Executive has approved arrangements the Licensee must apply for **approval** to amend or alter those arrangements.

#### **4. Guidance on arrangements for LC 10**

4.1 NSD regards the SAT [Systematic Approach to Training] framework, as in IAEA Tec. Rep. 380, as providing a comprehensive structure against which to judge a licensee's arrangements. The following list of elements provide NSD's views on what the Licensee's arrangements might be expected to contain to comply with LC 10. The list is neither exclusive nor exhaustive and will be subject to review and revision in light of operational experience.

4.2 If licensees have generic model(s) for arrangements then it is for the site to justify any deviation from the model(s) [**note: not all licensees use generic models**].

4.3 Arrangements should be provided to comply with LC 10.

4.4 Arrangements should address the licence condition requirements.

4.5 The arrangements should identify the person(s) responsible for ensuring compliance with this condition.

4.6 The arrangements should state the training policy in relation to the safety policy. The arrangements should also indicate the frequency at which the training policy is reviewed.

4.7 The arrangements should ensure that all people filling posts identified in post profiles specified under LC12 arrangements and all other persons on the site, including contractors and visitors ( to the extent necessary having regard to circumstances of these persons being on site) receive adequate training.

4.8 The arrangements should specify the means of providing appropriate training to all persons on the site including:

- 1) the management, organisational arrangements, level of resources, responsibilities of staff and procedures to be used for training and assessment;

- 2) the interfaces in relation to training between site departments and between central departments and training on and off site;

- 3) the training and appointment of the training staff including consideration of appropriate qualifications, experience, physical requirements, medical and specialist training; and

- 4) records to demonstrate that the needs established in paragraph 4.7 are met in practice.

4.9 The arrangements should require the production of a comprehensive schedule or programme for each person or groups of persons on the site in which the training requirements of each post are identified. This should include such topics as:

- 1) induction and familiarisation to the site;

- 2) general health and safety training;

- 3) specialist health and safety training for the site;

4) response to site and plant emergencies; and

5) job/post specific training needs.

4.10 The arrangements should recognise that there is a need for refresher training to be performed at appropriate intervals.

4.11 The means of achieving the training requirements should be defined in the arrangements and should indicate required training modules including, on-job training, off-job training and self-study. The arrangements should also include consideration of the tools needed to complete the training programme, e.g. simulators, mock-ups, test rigs etc.

4.12 The arrangements should ensure that for each type of post, an appropriate type of training guide be provided together with check sheets that record an individuals progress through the training programme.

4.13 The arrangements should ensure that the training is assessed after each module and on completion of the programme. On successful completion of the training, DAP or SQEP status should be confirmed by suitable means to the trainee under the arrangements made for LC12.

4.14 Such assessment should preferably be completed by a person independent of the training function and comprise:

1) performance demonstrations. e.g. on job, simulator exercise, emergency exercise etc.;

2) discussion and questioning; and

3) written examinations or tests.

4.15 The arrangements should ensure that the training programme is regularly reviewed and evaluated to assure its continued effectiveness.

4.16 The arrangements should ensure that records are made of the training, assessment and authorisations completed by an individual. Such records should provide evidence that the required training has been completed for the post the individual is holding.

4.17 The arrangements should ensure that regular reviews of the records are

made to ensure that the training levels remain valid and to identify candidates for retraining. Retraining modules should be completed prior to expiry of previous valid training.

4.18 If the records demonstrate that training has not been completed then the arrangements should define how the continuing validity of that SQEP or DAP status will be justified.

4.19 The arrangements should identify the person who has responsibility for reporting non-compliance's to the Executive.

4.20 The arrangements should ensure that the licensee responds to any Specification from the Executive. Such arrangements should identify the person responsible for responding to the Specification and they should identify the system whereby constraints, caveats or conditions imposed by the Executive are implemented.

4.21 The arrangements should ensure that that arrangements approved under this licence condition by the Executive can only be changed or amended with the Approval of the Executive. Person(s) responsible for ensuring compliance with this requirement must be identified in the arrangements.

## **5. Guidance on Inspection of Arrangements**

5.1 Part 5 of this guidance is to assist inspectors in judging the adequacy of the licensees arrangements. NSD regards the SAT [Systematic Approach to Training] framework, as in IAEA Tec. Rep. 380, as providing a comprehensive structure against which to judge a licensee's arrangements.

5.2 The following list is simply a hit list of aspects of LC 10 that can be examined during routine inspections. It is neither exclusive nor exhaustive and will be subject to review and revision in light of operational experience.

5.3 Check that arrangements have been made to demonstrate compliance with the LC.

5.4 Examine the arrangements documentation layout and check that it is consistent. Review the arrangements to establish validity, whether any changes have been made since the last review and whether the identified responsible persons are correct. Note whether instructions, methods and quality assurance rules claimed in procedures have been followed and whether any changes have been correctly incorporated and validated.

5.5 Establish that the arrangements contain a training policy and that it is coherent with respect to safety policy. Check that the arrangements are consistent with LC12 in that all posts covered by that condition receive training to comply with this condition.

5.6 Check that the arrangements cover the training function and specify means of providing the training for all staff on the site. Confirm that this covers management and organisational arrangements, interfaces between different departments as well as the actual training and appointment of the staff responsible for undertaking the licensee's training activities.

5.7 Examine the training programmes and establish that they define the objectives, expressed in terms of performance, training needs and also comprehensively cover safety requirements. Check that training activities address the general requirements of induction and the specific needs of site personnel, contractors and visitors.

5.8 Check that the arrangements cover the assessment and evaluation of the training covered by the programmes. As in paragraph 5.5, establish that linkage with LC12 arrangements ensure that where Duly Authorised Person (DAP) or Suitably Qualified and Experienced Person (SQEP) status is to be achieved, the training provided is suitable and sufficient.

5.9 Check that the arrangements have a system of regular review of training activities. Confirm that this ensures all components of the training programmes are effective and adequate. Discuss as necessary with the responsible person identified in the arrangements.

5.10 Check that arrangements require full and comprehensive records of training and that they are consistent with the requirements of LC6. Examine the records to establish that any changes to approved arrangements have been controlled to requirements established there under. Confirm that the system for amendment ensures justification and that consequently, the amended arrangements will be reissued to formal holders.

5.11 Confirm that the training procedures and instructions recognise where any constraints or conditions are clearly necessary that result in authorisation by a SQEP being required before proceeding beyond such constraints or conditions.

5.12 With respect to ensuring suitable interaction with the Executive, check that the arrangements:

- 1) cover a system for submission for approval to the Executive of those part or parts of the arrangements that may be specified;
- 2) contain such controls that any consequent amendments only take place with the Executive's approval; and
- 3) identify the responsible person and provide instructions for controlling arrangements approved under this condition.

## **6. Guidance on Inspection of Implementation of Arrangements**

6.1 Part 6 of this guidance is to assist inspectors in judging the adequacy of the Licensee's implementation of their arrangements i.e. is the licensee doing what their arrangements say they should be. As stated earlier NSD regards the SAT [Systematic Approach to Training] framework, as in IAEA Tec. Rep. 380, as providing a comprehensive structure against which to judge a licensee's arrangements.

6.2 The following list is simply a hit list of aspects of LC 10 that can be examined during routine inspections. It is neither exclusive or exhaustive and will be subject to review and revision in light of operational experience.

6.3 Establish that training programmes are in place and make appropriate use of a range of available training techniques such as; classroom, on-job, simulator, mock-up, open-learning and external courses.

6.4 Check the training section is fully resourced, as defined in the plant staffing plan, and that it is effective in the support which it offers to line management in analysing and satisfying training needs.

6.5 Check a sample of posts, particularly where the activities may affect safety, and establish that training requirements are identified. The requirements should be derived from post profiles, specific task analysis, and other descriptions of activities. General requirements for safety awareness, team-working, and supervisory skills should also be checked.

6.6 Check that the training programmes cover the needs of induction, initial training, continuing and refresher training (particularly for infrequent demands), emergency arrangements, and general awareness of site developments. Programmes should have detailed plans and written procedures that ensure a consistent approach and quality.

6.7 Review a sample of any open learning "on-the-job" modules and make a judgement on their suitability for the task involved. Check the control of on-job and open-learning training and in particular that persons giving or assessing the training have the relevant qualifications, experience and training themselves.

6.8 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. (this can often be carried out in conjunction with training required by the local rules on the site) Discuss as necessary with the responsible person identified in the procedures.

6.9 Check by sampling that adequate and accessible records of training are maintained, and that senior management receive regular reports of training achievement. Examine a sample of the training records to establish that training targets are met and that operational requirements have not caused delays in training. Discuss any shortcomings with the person identified in the procedures.

6.10 Check a sample of training modules and establish that assessment of the candidates was completed and that the details of such assessment was passed on to and accepted by the candidate. Note the assessment should be based on specified objectives, employ appropriate procedures and techniques, and be controlled and consistent.

6.11 Check that where the Executive has requested approval of any part of the arrangements required by this condition, that the appropriate authorisations are in place. They should remain valid to the appropriate QA standards as required by LC17.

## **7. Other Sources of Information**

7.1 The inspector should be aware that other Regulations contain requirements for appointment of individuals with similar authorities and responsibilities as DAPS & SQEPs. These include the Ionising Radiations Regulations 1999 requirements for Radiological Protection Advisors (RPAs) and Radiological Protection Supervisors (RPSs).