

<b>LC18 Radiological Protection</b>			
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# 1. Introduction

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 conditions. ONR inspects compliance with licence conditions, and also 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 technical inspection guide (TIG) is one of the suite of documents provided by ONR for this purpose.
2. Inspections should only be undertaken by ONR radiation protection specialists because of the specialist nature of the licence condition 18 (LC 18).

# 2. Purpose and Scope

4. The purpose of this guidance is to facilitate a consistent approach to LC 18 compliance inspection. The guidance should not be regarded as either comprehensive or mandatory.
5. The guidance provided is split into five main elements:
  - 1) Purpose of the Licence Condition.
  - 2) Guidance on arrangements for LC 18.
  - 3) Guidance on inspection of arrangements.
  - 4) Guidance on inspection of implementation of arrangements.
  - 5) Action to take in the event of a notification.

### 3. Licence Condition (LC) 18: Radiological Protection

18(1) The licensee shall make and implement adequate arrangements for the assessment of the average effective dose equivalent (including any committed effective dose equivalent) to such class or classes of persons as may be specified in the aforesaid arrangements and the licensee shall forthwith notify ONR if the average effective dose equivalent to such class or classes of persons exceeds such level as ONR may specify.

18(2) The licensee shall submit to ONR for approval such part or parts of the arrangements as ONR may specify.

18(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

8. The purpose of this licence condition is to implement Recommendation 3 of Sir Frank Layfield's report on the Sizewell B Public Inquiry (published in 1987).

"I recommend that an average annual dose equivalent for the workforce at Sizewell B should be set as an operational investigation level. If the average dose equivalent, including any committed dose equivalent, were to exceed this level, the Nuclear Installations Inspectorate (NII), [now ONR], should investigate the circumstances with a view to ensuring that ALARP (as low as reasonably practicable) is being achieved."

9. LC 18(1) provides for the making and implementing of arrangements. It also allows ONR the power to specify an average dose for notification to ONR.
10. LC 18(2) gives the power to ONR 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.
11. LC 18(3) ensures that where ONR has approved arrangements, the Licensee must apply for approval to amend or alter those arrangements.

## 5. Guidance on Arrangements for LC18

13. The following list of elements of arrangements provides ONR's views on what the Licensee's arrangements might be expected to contain to comply with the LC.
14. Arrangements should be provided to comply with LC 18 requirements.
15. The arrangements should define the class or classes of persons and provide the means of identifying those for whom average doses should be kept. The classes of work used for the HSE's Central Index of Dose Information will be suitable in most instances.
16. The arrangements should ensure that adequate records are kept for the purpose of this condition that is consistent with the arrangements made for LC 6 (Documents, records, authorities and certificates) and LC 25 (Operational records).
17. The arrangements should include a requirement to **notify** ONR forthwith if the average dose to a class of persons exceeds the level specified by ONR, if appropriate.
18. Ensure that arrangements approved under this licence condition, by ONR, can only be changed or amended with the **approval** of ONR. The person(s) responsible for ensuring compliance with this requirement should be identified in the arrangements.

## 6. Guidance on Inspection of Arrangements and their Implementation

20. Part 6 of this guidance is to assist inspectors in judging the adequacy of the licensees' arrangements and their implementation. Inspection of these arrangements will normally be undertaken by the Site Inspector as part of a TIG NS-INSP-GD-054 IRR17 inspection, or where support is required, with ONR radiation protection specialist inspectors.
21. 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.
22. Confirm that the arrangements ensure dose assessment results are entered into a suitable dose record from which data for the average dose within classes can be determined.
23. Confirm that arrangements enable the licensee to notify ONR if the average dose to a class of persons exceeds the level specified.
24. Confirm that dose assessment results have been entered onto dose records, and that there are derived average doses for the identified classes.
25. Confirm that the identified classes, derived from criteria contained in the procedures, are still current. If changes have occurred, check that the reasons for such changes are justified and that they have not been created to disguise groups that would otherwise have exceeded the specified level.
26. Where relevant, ONR may write to the licensee confirming that it will not be inspecting the requirement for a historical specification, until further notice. This may be relevant for example where no persons are currently employed within the classes identified by a licensee in their approved arrangements.

## 7. Action to be taken in the event of a Notification

28. Upon receipt of a **notification** under LC 18 the Site Inspector should inform his/her Superintending Inspector. Radiological protection specialist assessment effort should be requested to analyse the implications of the situation.

## 8. Glossary and Abbreviations

ALARP	As Low As Reasonably Practicable
BSL	Basic Safety Level
BSL(LL)	Basic Safety Level (legal limit)
BSO	Basic Safety Objective
HSE	Health and Safety Executive
HSWA74	The Health and Safety at Work etc Act 1974
IRR17	Ionising Radiations Regulations 2017
SAP	Safety Assessment Principle(s)
TAG	Technical Assessment Guide(s)
TIG	Technical Inspection Guide(s)