



ONR GUIDE			
<b>LC2: MARKING OF THE SITE BOUNDARY</b>			
<b>Document Type:</b>	Nuclear Safety Technical Inspection Guide		
<b>Unique Document ID and Revision No:</b>	NS-INSP-GD-002 Revision 2		
<b>Date Issued:</b>	July 2019	<b>Review Date:</b>	July 2024
<b>Approved by:</b>	Kulvinder McDonald	Operational Inspection Specialism Professional Lead	
<b>Record Reference:</b>	CM9 Folder 1.1.3.979. (2020/208157)		
<b>Revision commentary:</b>	Rev 1: Routine review resulting in minor formatting and additional information relevant to defence and decommissioning sites.  Rev 2: Updated review period		

**TABLE OF CONTENTS**

1	INTRODUCTION .....	2
2	PURPOSE AND SCOPE .....	2
3	LICENCE CONDITION 2 – MARKING OF THE SITE BOUNDARY.....	2
4	PURPOSE OF LICENCE CONDITION 2 .....	2
5	GUIDANCE ON ARRANGEMENTS FOR LC2.....	3
6	GUIDANCE ON INSPECTION OF ARRANGEMENTS AND THEIR IMPLEMENTATION..	4
7	DEFENCE SITES .....	5
8	CONSTRUCTION ACTIVITIES - NUCLEAR NEW BUILD.....	5
9	DECOMMISSIONING SITES .....	6

## **1 INTRODUCTION**

1.1 Many of the conditions attached to the standard nuclear site licence require, or imply, that licensees should make arrangements to comply with regulatory obligations under these licence 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 in making 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 suites of documents provided by ONR for this purpose.

## **2 PURPOSE AND SCOPE**

2.1 The purpose of this guidance is to facilitate a consistent approach to Licence Condition 2 (LC2) Marking of the Site Boundary compliance inspections and to provide a framework for LC2 inspection activities, within which inspectors are expected to exercise their discretion.

2.2 The guidance has four main elements:

- Purpose of the Licence Condition.
- Guidance on arrangements for LC 2.
- Guidance on inspection of arrangements.
- Guidance on inspection of implementation of arrangements.

## **3 LICENCE CONDITION 2: MARKING OF THE SITE BOUNDARY**

(1) The licensee shall make and implement adequate arrangements to prevent unauthorised persons from entering the site or, if so directed by the ONR, from entering such part or parts thereof as the ONR may specify.

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

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

(4) The licensee shall mark the boundaries of the site by fences or other appropriate means and any such fences or other means used for this purpose shall be properly maintained.

(5) The licensee shall, if so directed by the ONR, erect appropriate fences on the site in such positions as the ONR may specify and shall ensure that all such fences are properly maintained.

## **4 PURPOSE OF LICENCE CONDITION 2**

4.1 The purpose of the licence condition is to ensure that the extent of the licensed site boundary is marked and the public is protected from danger by preventing inadvertent or unauthorised entry. In addition, marking helps to ensure everybody knows whether they are on or off the licensed site so that they can take the correct actions in the event of an emergency. The boundary, which should be identifiable by both the public and employees, usually consists of a fence and warning notices. The main purpose of fencing the boundary is to allow the licensee to control entry if it needs to apply

different conditions to the entry of different classes of person e.g. members of the public and workers.

## 5 GUIDANCE ON ARRANGEMENTS FOR LC2

- 5.1 This section provides ONR's expectations on what the licensee's arrangements should include in seeking to comply with LC 2.
- 5.2 The arrangements should be documented within the licensee's system for managing safety and clearly stated in the nuclear site licence compliance arrangements. The arrangements should be readily available and accessible, contemporary, be owned and authorised by an appropriate senior manager and controlled under the licensee's quality management system to comply with the requirements of LC17. The arrangements should recognise links to other relevant LC arrangements e.g. LCs 8, 9 and 16.
- 5.3 A licensee's arrangements must satisfy the specific licence condition requirements and they should take account of the requirement to respond to ONR's primary powers outlined in the LC to: -
- **direct** the licensee to prevent unauthorised persons from entering such part or parts of the licensed site as the ONR may **specify**;
  - **approve** arrangements **specified** by ONR and not amend these without further **approval** by ONR; and
  - **direct** the licensee to erect and maintain fences on the site in such positions as the ONR may **specify**.
- 5.4 In cases where the fence and boundary are not coincident, the boundary should be delineated with appropriate notices to alert both the public and employees as to where they are in relation to the licensed site.
- 5.5 Prevention of entry to the licensed site or parts of the site is usually achieved by physical barriers such as fences, turnstiles, walls, etc, but this may not always be practicable and in such cases may be supplemented by surveillance and patrols. Whilst the inspection against LC 2 will look at the adequacy of the marking of the site boundary and the arrangements to prevent unauthorised persons from inadvertently entering the site this will not be a security inspection and will focus on preventing inadvertent access.
- 5.6 Sometimes members of the public or other workers are permitted to be on the licensed site without authorisation or prior agreement. An example is the Dungeness- shingle foreshore area.
- 5.7 To prevent inadvertent entry to site the arrangements should require that the boundaries of the site are marked by fences or other appropriate means and include procedural controls as well as physical barriers.
- 5.8 Arrangements should define requirements for maintenance of the boundary fences, or other means by which the boundary is marked including the maintenance of gates, turnstiles and access routes.

## 6 GUIDANCE ON INSPECTION OF ARRANGEMENTS AND THEIR IMPLEMENTATION

- 6.1 This section of the technical inspection guide is to assist ONR inspectors in judging the adequacy of the licensee's arrangements. The list below provides some specific aspects that can be examined during routine LC2 inspections. This list is neither exclusive nor exhaustive, and will be subject to review and revision in light of operational experience.
- 6.2 Examine the site plan showing the location of the boundary and confirm that this is the extant copy submitted to, and retained by, ONR (LC16(1) and LC16(3)).
- 6.3 Confirm that site plan records the data required for reproducing the physical location of the boundary and this is identical to the map supplied by the licensee during licensing.
- 6.4 Examine the arrangements for maintaining the means used to mark the boundary and/or prevent unauthorised persons from entering the site.
- 6.5 Review the procedural controls implemented by the site and confirm with those responsible for delivering these controls that they have an appropriate understanding of the arrangements and have been provided with appropriate training.
- 6.6 Ask the licensee to demonstrate how the physical location of the boundary is derived from the site plan.
- 6.7 Review a sample of different classes of persons on site, visitors, staff, contractors etc. and confirm that site arrangements have been appropriately implemented to confirm who is on the site and who has left the site and that they permit the licensee to account for all persons on the site at any time.
- 6.8 Inspect the maintenance records and confirm that they accord with the arrangements and that any corrective actions raised have been addressed. Confirm that individuals responsible for maintenance aspects of the arrangements have been provided with appropriate training.
- 6.9 Periodically walk the boundary of the site and confirm that the marking of the site boundary is consistent with the location derived from the site plan required under LC16 and that such marking is consistent with the licensee's arrangements and regulatory expectations. Particular attention should be paid to frequency of signage and visibility of boundary markers such that it remains clear at all times whether someone is on or off the licensed site. The latter is particularly important at locations where the boundary of the licence site is not coincident with the means of preventing unauthorised persons from entering the site.
- 6.10 When conducting walks of the site boundary, inspectors should be aware of their own health and safety, wear suitable clothing and where required appropriate Personal Protective Equipment. Inspectors should also be aware that sites will have security arrangements to deter unauthorised access and should liaise appropriately with the site's security manager, to ensure their own safety and ensure that security personnel are aware of the inspectors' intention to walk the boundary.
- 6.11 In cases where the fence and boundary are not coincident, confirm the boundary is delineated with appropriate notices to alert people as to where they are in relation to the licensed site. An example is where a shoreline is part of the licensed site or part of a carpark is on the licensed site but is outside the fence. There are also examples of nuclear licensed sites adjacent to other nuclear licensed sites which share a common security fence. The boundaries of each site should be delineated with appropriate notices to alert people as to where they are in relation to each licensed site.

## 7 DEFENCE SITES

- 7.1 ONR regulates defence sites throughout Great Britain. These sites will often be conducting licensable activities regulated by ONR within the nuclear licensed site boundary but also Ministry of Defence authorised activities within the defence authorised site boundary. At some sites the licensed and authorised sites are coincident and it may be appropriate for the ONR site inspector to liaise with the defence regulator when conducting LC2 inspections. At sites where the licensed and authorised sites are not coincident, the boundary should be delineated by appropriate means to alert people as to where they are in relation to the licensed and authorised sites.
- 7.2 The site inspector should also be aware of the regulatory authorities of ONR at defence authorised sites in GB and may wish to inspect that the authorised boundary is appropriately delineated, however this would not form part of a LC2 inspection but would serve as a check to ensure that the purposes of ONR are adequately regulated.
- 7.3 When conducting walks of the boundary at defence sites, site inspectors should also be aware that sites will have enhanced security arrangements to deter unauthorised access and should liaise appropriately with the site's security manager as well as the Ministry of Defence, to ensure their own safety and ensure that security personnel are aware of the inspectors intention to walk the boundary.

## 8 CONSTRUCTION ACTIVITIES – NUCLEAR NEW BUILD

- 8.1 ONR recognises there may be practical difficulties in marking the nuclear site boundary during major construction works. For example, the licensee and its contractors will need to work freely across the boundary between the licensed site and the wider construction site. ONR notes that during the early stages of construction there will be no nuclear hazard on the licensed site.
- 8.2 In these circumstances the site inspector, in consultation with ONR's licensing specialist, may consider an application for excluding LC2(4) from the site licence subject to the following:
- Using the map submitted with their revised site licence application letter, the prospective licensee should record boundary information (including GPS data) under their LC16 arrangements.
  - The licensee should use this data to temporarily mark the boundary using appropriately spaced physical markers. This will demonstrate their ability to reproduce the boundary. The site inspector should walk the boundary and check it against submitted plans.
  - The licensee should post plans showing the nuclear licensed site boundary at appropriate locations on the development site e.g. entrances.
  - An agreement regarding reinstatement of the boundary markings should be sought from the potential licensee to coincide with an appropriate construction milestone (generally defined as pouring of the first safety related concrete).
  - As this key milestone approaches, boundary markings should be reinstated and verified by the site inspector prior to grant of the licence variation.

## **9 DECOMMISSIONING SITES**

- 9.1 ONR regulates decommissioning sites in Great Britain until the point at which licensees can demonstrate there is no danger from ionising radiation and the licence is revoked or they are granted a no-danger notice (as required by the Nuclear Installation Act 1965). Licensees often elect to release parts of the site in a phased approach, provided they are able to demonstrate to ONR's satisfaction that there is no danger from ionising radiation from the part of the site they wish to delicense. It is common at decommissioning sites, that land within the security fence has been de-licensed, in a process of licence revocation and re-licensing. The site inspector should therefore confirm that the boundary is delineated with appropriate notices to alert people on where they are in relation to the licensed site against the version of the map supplied by the licensee and agreed by ONR during the re-licensing process. Current guidance on re-licensing can be found on ONR's web site.