|  |
| --- |
|  |
| ONR Technical Inspection Guide (TIG)  LC 25 – Operational records |



ONR Technical Inspection Guide (TIG)

LC 25 – Operational records

**Authored by**: Nuclear Safety Inspector

**Approved by**: Head of Profession - Operational Inspection

**Issue**: 7.3

**Published**: July 2025

**Next scheduled review**: July 2028

**Document reference:** NS-INSP-GD-025

**Record reference**: ONRHH-822789359-20507

Revision commentary

|  |  |
| --- | --- |
| Issue No. | Description of Update(s) |
| 7 | Major review. |
| 7.1 | Minor update - review date pushed back to February 2024, also document transferred onto latest template. |
| 7.2 | Minor review - minor typos and reference updates. |
| 7.3 | Minor Review – refocus of content, removal of duplication no significant change |

# Introduction

1. Technical Inspection Guides (TIGs) assist inspectors in making regulatory judgments and providing advice on Licence Conditions (LCs). Most LCs are goal-setting, leaving the specifics of arrangements to the dutyholder, who is ultimately responsible for safety. This guidance aims to support consistent inspection of LC 25 – Operational records.
2. While not exhaustive or mandatory, the guidance offers a clear framework for inspectors to assess both the adequacy and implementation of licensee arrangements. Additional information on record management is available in the Technical Assessment Guide (TAG) on “Management of records” [1] and the TIG for LC 6 [2].
3. Inspectors should also refer to the ONR procedure on Risk-Informed and Targeted Engagements (RITE) [3], which guides risk-based prioritisation in regulatory interventions and supports decisions on engaging with dutyholders.

# LC 25 – Operational records

25 (1) The licensee shall ensure that adequate records are made of the operation, inspection and maintenance of any plant which may affect safety.

25 (2) The aforesaid records shall include records of the amount and location of all radioactive material, including nuclear fuel and radioactive waste, used, processed, stored or accumulated upon the site at any time.

25 (3) The licensee shall record such additional particulars as ONR may specify.

25 (4) The licensee shall furnish to ONR such copies of extracts from such records at such times as ONR may specify.

# 

# Purpose and outcomes of LC 25

1. The purpose of LC 25 is to ensure that the licensee maintains adequate records which relate to their operations and that these records have suitable details related to radioactive material.
2. The main regulatory outcomes of a LC 25 are:
   1. that the licensee makes records of their activities related to their operations. The breadth of the requirement comes from the LC 1 definition of operations[[1]](#footnote-2).
   2. the requirement to keep records of the amount and location of any radioactive material (including fuel and waste) is needed to track and account for such material, so that the nature and location of radioactive material is at all times known. The information may also be required in connection with LC 5 - Consignment of Nuclear Matter [4] and in relation to Nuclear Safeguards (covered in appendix A).
   3. to provide ONR the powers to specify that additional records be kept by the licensee and for the licensee to provide copies of extracts from such records that ONR may require.
   4. that these records, which are required to be retained (preserved) by   
      LC 6 – Documents, records, authorities and certificates [2], can be used by the licensee to demonstrate compliance with licence conditions or other legal requirements.
   5. the records are important sources of information in any investigation and could be used in evidence to support or defend a prosecution.
3. Inspectors may take account of relevant requirements in The Nuclear Safeguards (EU Exit) Regulations 2019 (NSR19). There are links between regulations 6, 10 and 11 of NSR19 and LC25. The main caveat for application to safeguards is that safeguards only apply to qualifying nuclear material (QNM) (as defined in the Nuclear Safeguards Act 2018), rather than nuclear matter. Guidance on the safeguards-relevant aspects of LC 25 is provided in appendix A of this document and supports a coordinated inspection approach if appropriate.

# Guidance on inspection of arrangements for LC 25

1. This licence condition does not formally require the licensee to make and implement adequate arrangements, but to effectively comply with this condition we would expect the licensee to have established procedures that identify the records to be kept, the period of retention and the persons responsible for its implementation.
2. Sampling of these procedures to confirm that they include the following:
   1. approved and current within the dutyholder Quality Management System (QMS), adequately reflect the current organisation and define responsibilities for complying with the licence condition.
   2. Confirm that procedures exist to respond to extant LC 25 (3) or (4) specifications or to establish arrangements if required
   3. ensure that records cover all 'operations' as defined in LC 1. The records should include the quantity and location of any radioactive material, including nuclear fuel and radioactive waste used, processed, stored or accumulated on site.
   4. identify which records are being kept to comply with or demonstrate compliance with this or other licence conditions. This can be achieved by producing a schedule of records which should include retention periods. For record retention periods refer to LCs 5 [4] and 6 [2] and guidance provided in NS-TAG-GD-033 “Management of records” [1].
   5. that the retention period begins when the record ceases to be "current" or "live", and that any periods shorter than those specified in LC 5 and 6 have been approved by ONR.
   6. specify the permissible form in which the records may be kept e.g. hard copy, microfiche, electronic, physical items, film media, etc., together with methods to ensure their integrity and future accessibility for the period the records are to be retained.
   7. require that the persons responsible for compliance with this condition are identified, and that those controlling and supervising the making, reviewing and retention of these records are suitably qualified and experienced.
   8. recognise the need for the licensee to respond to any LC 25 (3) or (4) Specification from ONR and identify the person responsible for making any necessary changes to the procedures.

# Guidance on inspection of implementation of arrangements for LC 25

1. Ensure those responsible for compliance are aware of their duties and are suitably qualified and experienced. Safety records should include operational logs, safety parameter checks, plant configuration records, maintenance actions and results, and permits defining safe working conditions.
2. Inspectors should ensure that a sufficient range of site records is maintained to allow determination of the plant’s previous status and condition.
3. The following indicative list, which is not exhaustive, gives a sample of the types of records which could be sampled:
   1. Operational logs (e.g. shift managers' / charge engineers' and supervisors' logs,);
   2. Records required to demonstrate compliance with Operating Rules or Technical Specifications;
   3. Records of the state or configuration of the plant including any necessary safety mechanisms, devices or circuits;
   4. Records to show the status of any maintenance, inspection, modification, test, calibration or other safety-related work in progress;
   5. Records required to demonstrate compliance with the maintenance schedule;
   6. Clearance, confined space and permit to work certificates, approved schemes of work etc.;
   7. Records of events, incidents and near misses relevant to safety;
   8. Records of adjustments of plant parameters;
   9. Records of staff rotas, levels and training;
   10. Records of Operational Decision Making (ODM) and Conservative Decision Making (CDM) meetings.
4. Inspectors should also verify that up-to-date records are maintained for the type, quantity, and location of all radioactive materials on site, including nuclear fuel and radioactive waste (refer to [3], [4], [5]). Refer to the safeguards appendix for records relevant to NSR19 regulations 6 and 10.
5. Ensure there is a robust system for producing, reviewing, and storing records, that storage is secure and well-maintained to prevent loss or damage, and that records remain readily accessible for inspection.
6. When reviewing records, focus on those relevant to tracking and trending. If issues arise or entries are unclear, consult appropriate managers, engineers, or supervisors. Any significant follow-up should be addressed through reactive inspection under the relevant licence condition or legislation:
   1. Operational Records;
      1. possible breaches of operating rules or instructions;
      2. repetitive or standing alarms;
      3. plant failures, especially to danger;
      4. plant failures following maintenance;
      5. repetitive or long-standing plant failures;
      6. external events, e.g. grid problems, services and supplies;
      7. radiological events;
      8. operational difficulties;
      9. staffing problems; and
      10. comments that are unclear.
   2. Maintenance Records - Focus on plant or activities which are safety-significant or are linked to statutory requirements and look for reports of:
      1. failure to danger, unrevealed or repetitive failure, or failure with unexpected or potentially adverse consequences;
      2. problems with the programming or scheduling of safety related work;
      3. lack of, or incorrect, spares;
      4. staffing problems, e.g. shortages, training gaps etc;
      5. availability of alternative plant or equipment;
      6. failure to maintain according to the maintenance schedule, or statutory requirements.
7. Plant which cannot be maintained according to the maintenance schedule should be declared unavailable unless or until an extension to the maintenance interval has been agreed.
   1. Sample incident and event records to ensure known incidents to the inspector are documented. Discuss selected significant events with the responsible person and check the status of resulting actions. Any major concerns should be followed up as reactive inspections under LC 7.
   2. Records of current and prospective modifications. Review the register, looking in particular at any new entries. Further follow-up action or more detailed inspection may need to be carried out in accordance with LC 22 guidance.
8. Check locally held previous logs or other records to confirm that they are being adequately stored pending archiving or central storage, and that local holdings of records are consistent with the arrangements for LC 5 and LC 6.

# Appendix A – Nuclear safeguards records

1. Many LC 25 requirements directly support compliance with NSR19 and ONMACS [5], particularly regarding record-keeping, staff competence, and robust procedures. Inspectors should be aware of distinctions between “nuclear matter” and “qualifying nuclear material” (QNM), with QNM defined in legislation as natural, depleted, and enriched uranium, thorium, and plutonium.
2. Safeguards record requirements are detailed in NSR19 regulations 10 and 11, ensuring operators can account for, control, and report nuclear material. Record expectations are outlined in fundamental safeguards expectations (FSEs) and material accountancy and control expectations (MACEs) within ONMACS. LC 25 operational records primarily support FSEs 6 (Measurement Programme and Control) and 7 (Nuclear Material Tracking), covering material measurement and inventory control. MACE 8.3 records management also guides ONR’s standards for safeguards record storage and management.
3. In general, licensee records documenting the movement, measurement, or storage of QNM are considered safeguards relevant. Procedures reviewed under LC 25 may serve both safeguards and safety purposes, allowing for inspection synergies. Staff producing operational records for QNM must have defined safeguards roles as required by NSR19 Schedule 2(2), aligning with FSE 3 competence management expectations.
4. The records retention periods for LCs 5 and 6 exceed the five-year safeguards requirement in NSR19 regulation 6. Regulations 6 and 10, and schedule 2(6) of NSR19, require similar information, and ONR’s “nuclear material tracking” (FSE 7, ONMACS) is closely aligned. An operator’s safeguards system for QNM should provide the information required for LC 25.
5. Safeguards records are expected to be provided to ONR within 14 days of a written request, regulation 10. Expectations in MACE 8.3 records management and this TIG state only that they should be “readily retrievable”. The inspector should utilise judgement here to determine acceptable retrieval times for safeguards/safety operational records.
6. ONR guidance in MACE 5.2 of ONMACS requires that systems and components for accountancy control undergo regular, systematic maintenance. Maintenance records under LC 25 can demonstrate this, especially for equipment serving both safety and safeguards roles. Maintenance should match the reliability and performance needed for safeguards, which may differ from safety requirements.

# References

|  |  |
| --- | --- |
| [1] | ONR, “NS-TAST-GD-033 - Management of records”. |
| [2] | ONR, “NS-INSP-GD-006 - LC6 Documents, records, authorities and certificates”. |
| [3] | ONR, “ONR-RD-POL-002 - Risk Informed and targeted engagements”. |
| [4] | ONR, “NS-INSP-GD-005 - LC5 Consignment of nuclear matter”. |
| [5] | ONR, “ONR Nuclear material accountancy control & safeguards (ONMACS)”. |

1. LC1 Interpretation – ‘operations’ includes maintenance, examination, testing and operation of the plant and the treatment, processing, keeping, storing, accumulating or carriage of any radioactive material or radioactive waste and “operating” and “operational” shall be construed accordingly [↑](#footnote-ref-2)