

NUCLEAR SAFETY DIRECTORATE - BUSINESS MANAGEMENT SYSTEM

TECHNICAL INSPECTION GUIDE

GUIDANCE: LC24 OPERATING INSTRUCTIONS

T/INS/024

ISSUE 001

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Issue Date: 24/01/05

Open Government Status: Fully Open

Review Date: 31/12/10

1. Purpose & Scope

1.1 The purpose of this guidance is to facilitate a consistent approach to LC 24 compliance inspection and to provide assistance to inspectors while carrying out their duties in this area. The guidance should not be regarded as either comprehensive or mandatory.

1.2 The guidance provided is split into four main elements:

- 1) Purpose of the Licence Condition
- 2) Guidance on arrangements for LC 24.
- 3) Guidance on inspection of arrangements.
- 4) Guidance on inspection of implementation of arrangements.

2. Licence Condition

LICENCE CONDITION 24: OPERATING INSTRUCTIONS

24(1) The licensee shall ensure that all operations which may affect safety are carried out in accordance with written instructions hereinafter referred to as operating instructions.

24((2) The licensee shall ensure that such operating instructions include any instructions necessary in the interests of safety and any instructions necessary to ensure that any operating rules are implemented.

24(3) The licensee shall, if so specified by the Executive, furnish to the Executive

copies of such operating instructions and when any alteration is made to the operating instructions furnished to the Executive, the licensee shall ensure that such alteration is furnished to the Executive within such time as may be specified.

24(4) The licensee shall make and implement adequate arrangements for the preparation, review and amendment of such operating instructions.

24(5) The licensee shall submit to the Executive for approval such part or parts of the aforesaid arrangements as the Executive may specify.

24(6) 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 24.

3.1 The purpose of this condition is to ensure that written operating instructions are produced for all operations which may affect safety, and that all these operations are undertaken in accordance with the instructions.

3.2 Instructions should be clear and unambiguous and should be consistent with the safety case and its assumptions. They should specifically highlight Operating Rules (ORs) where these exist and require operations to be undertaken in accordance with them, and within any other parameters which minimise the risk from other hazards.

3.3 Arrangements for document control and distribution are required, together with arrangements to validate the instructions and changes to them, and to bring them into use at the appropriate time. These requirements should also apply in their entirety for temporary operating instructions and inspectors should note this when inspecting for compliance with this condition

3.4 The condition also gives us the power to specify and approve (freeze) the arrangements for the production of operating instructions and to require the licensee to furnish us with serviced copies of specified operating instructions.

4. Guidance on arrangements for LC 24.

4.1 Arrangements should address all the licence condition requirements, and specifically should require that all operating rules are implemented by operating instructions.

4.2 Arrangements should be clear, readily available and reasonably up to date. They should be signed by an appropriate manager and controlled under a Quality

Management System consistent with the requirements of LC17.

4.3 The arrangements should contain a definition of the term "operation" in accordance with LC1 and include maintenance, examination, testing and operation of the plant, together with the treatment, processing, keeping, storing, accumulating or carriage of any radioactive material or radioactive waste.

4.4 The arrangements should therefore require or incorporate a list of all "operations" on the site which may affect safety and which therefore require operating instructions to be produced in accordance with LC24(1).

4.5 The arrangements should require that operating instructions clearly describe how tasks will be carried out and contain all necessary prerequisites, checks, precautions and actions to be taken in the interests of safety. The operating instructions should be designed to minimise the risk from potential hazards.

4.6 The arrangements should require instructions to be provided to define how plant would be brought back within a safe working envelope if it is discovered to be outside the limits and conditions specified by the safety case.

4.7 The arrangements should require operating instructions to define the number of SQEPs assumed necessary in the safety case to safely carry out the operation.

4.8 The arrangements should require that operating instructions should be verified before being authorised and issued.

4.9 The arrangements should provide for the preparation, review and amendment of operating instructions to satisfy the requirements of LC24(4). The procedure should be formal and include classifying instructions or changes in them in accordance with the safety significance and processing them appropriately.

4.10 The arrangements should recognise that the Executive may specify that some operating instructions may need to be furnished under LC24(3) or that it may specify that arrangements must be approved and not changed without its further approval under LC 24 (5) & (6).

4.11 The arrangements should identify the person(s) who has responsibility for reporting non-compliance to the Executive.

5. Guidance on inspection of arrangements for LC 24.

5.1 Inspect the arrangements to confirm that they are "in ticket" with the QMS, are up to

date and that responsibilities have been identified.

5.2 Check that the arrangements contain a definition of the term "operations" in accordance with LC 1. This must include maintenance, examination, testing and operation of the plant and the treatment, processing, keeping, storing, accumulating or carriage of any radioactive material or radioactive waste.

5.3 Confirm that the arrangements require or incorporate a list of all operations (including maintenance) on the site which may affect safety and which therefore require operating instructions to be produced in accordance with clause 24(1).

5.4 Arrangements should ensure that operating instructions contain all necessary prerequisites, checks, precautions and actions to be taken in the interests of safety. Check that the operating instructions identify and seek to reduce the risk from potential hazards.

5.5 Confirm that instructions are required to covering the return of plant to a safe working envelope if it is discovered to be outside the limits and conditions specified by the safety case.

5.6 Confirm that operating instructions are expected to be such as to ensure that operations are consistently done in the way assumed in the safety case.

5.7 Confirm that instructions are expected to define action to be taken in the event of any fault or failure.

5.8 Check that the operating instruction are required to indicate any minimum number of SQEPs required by the safety case to carry out the operation safely.

5.9 Check the arrangements state that operating instructions will be both written and verified before being authorised and issued.

5.10 Check that the arrangements deliver a documented system for the preparation, review and amendment of operating instructions to satisfy the requirements of LC 24(4). The system should be rigorous but should allow necessary changes to be properly and timeously implemented and incorporated. The system might be expected to include :

(a) a classification system for safety significance of instructions;

(b) an authorisation system for all instructions;

(c) periodic review of the operating instructions to confirm that changes

arising from plant modification or operating practice, or as a result of experience during operation, testing, maintenance, or other activities have been properly incorporated and authorised, distributed and implemented.

(d) the maintenance of up-to-date instructions at all relevant locations and provision of information on the instructions to all relevant personnel; and

(e) the withdrawal of obsolete instructions;

5.11 With respect to LC 24 (3), confirm that arrangements exist to cover the furnishing of serviced copies of operating instructions to the Executive if specified, and to ensure that any necessary procedures will be in place if submission of arrangements for approval is specified under LC 24(5).

6. Guidance on inspection of implementation of arrangements for LC 24.

6.1 Confirm that current copies of instructions are available to operating and maintenance staff, and to others with operating or compliance responsibilities.

6.2 Confirm that procedures require all operations be carried out in compliance with the written operating instructions and that the instructions implement the Operating Rules required by LC 23. Confirm that the instructions include actions necessary to maintain and monitor compliance with the Operating Rules, and action to restore compliance and reestablish a safe operating envelope if any limits or conditions are exceeded, and any necessary reporting of such events.

6.3 Confirm that the licensee's arrangements require the reporting of any failure to comply with operating instructions in respect of any operation that may affect safety.

6.4 Check that an adequate system is in place to direct staff to read and use the operating instructions, and to direct them to read any changes both temporary and permanent to operating instructions relevant to their duties and responsibilities.

6.5 If when checking logs or any other documents or records there appears to be a reference to non-compliance with an LC 24 instruction, follow up the event with the relevant manager or individual concerned. Check that the requirements of LC 7 have been followed and the event has been properly investigated.

6.6 Review the operating instructions and select a sample for examination. Examine the safety case and confirm that the instructions are consistent with the safety case. On the plant, discuss the use and meaning of the instruction with operating or maintenance personnel to establish that the instruction is clear and that they have an adequate

understanding of its requirements.

6. Where modifications have resulted in changes to, or required new, operating instructions, check that the safety case has been completed under LC 22 arrangements and that from this the necessary operating envelope has been developed and limits specified.