

NUCLEAR SAFETY DIRECTORATE - BUSINESS MANAGEMENT SYSTEM		
<b>SITE INSPECTION AND ENFORCEMENT GUIDANCE: LC 35 DECOMMISSIONING</b>		<b>T/INS/035</b>
		ISSUE 002
Approved By: <i>S L Creswell</i>	S Creswell	Issue Date: 20/06/2005
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## 1. Purpose & Scope

1.1 The purpose of this guidance is to facilitate a consistent approach to LC 35 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 does not indicate when or to what extent these compliance inspections should be made 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 35.
- 3) Guidance on inspection of arrangements.
- 4) Guidance on inspection of implementation of arrangements.

1.4 This guidance should be read in conjunction with T/AST/026 Decommissioning on Nuclear Licensed Sites. All site inspectors should be familiar with the requirements to have plans in place in the operational phase. Site inspectors on decommissioning sites should be familiar with the whole document.

1.5 Life Cycle Baselines and Near Term Work Plans required by NDA should cover the requirements of LC35(2).

1.6 Reactor site inspectors should be aware that the Nuclear Reactors (Environmental Assessment for Decommissioning)

Regulations 1999 apply and may affect their site. Contact the EIA Project Officer for further information.

## 2. Licence Condition

### 2.1 LICENCE CONDITION 35 - Decommissioning

**35(1)** The licensee shall make and implement adequate arrangements for the decommissioning of any plant or process which may affect safety.

**35(2)** The licensee shall make arrangements for the production and implementation of decommissioning programmes for each plant.

**35(3)** The licensee shall submit to the Executive for **approval** such part or parts of the aforesaid arrangements or programmes as the Executive may **specify**.

**35(4)** The licensee shall ensure that once approved no alteration or amendment is made to the arrangements or programmes unless the Executive has **approved** such alteration or amendment.

**35(5)** The aforesaid arrangements shall where appropriate divide the decommissioning into stages. Where the Executive so **specifies** the licensee shall not commence nor thereafter proceed from one stage to the next of the decommissioning without the **consent** of the Executive. The arrangements shall include a requirement for the provision of adequate documentation to justify the safety of the proposed decommissioning and shall where appropriate provide for the submission of this documentation to the Executive.

**35(6)** The licensee shall, if so **directed** by the Executive where it appears to them to be in the interests of safety, commence decommissioning in accordance with the aforesaid arrangements and decommissioning programmes.

**35(7)** The licensee shall, if so **directed** by the Executive, halt the decommissioning of a plant and the licensee shall not recommence such decommissioning without the **consent** of the Executive.

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

3.1 The purpose of this Condition is to require the licensee to make adequate provisions for decommissioning and to give discretionary powers to the Executive to direct that decommissioning of any plant or process is commenced or halted. It is important that the licensee recognises that all the other Conditions also apply to decommissioning, albeit that some may have a reduced practical impact depending on the hazard remaining until the site is de-licensed. In general, the most hazardous materials, for example used fuel, should be removed at an early stage.

3.2 Where the timescales for storage are lengthy, wastes should be stored in a safe passive form wherever possible and this should be identified in the decommissioning programme. The licensee's arrangements should outline a programme for decommissioning plants on the site to achieve a progressive and systematic reduction of hazard. The arrangements should include provision for the maintenance of adequate staffing levels to comply with all licence condition requirements and the production of a safety case to justify the proposed course of action.

3.3 Towards the end of a plant's life, it is important that the inspector establishes with the licensee the point at which the plant status moves from operating to decommissioning. In all cases, post operational clean-out (POCO) activities should be covered either in the operational safety case, or the decommissioning safety case. The arrangements should note that decommissioning of a site will also involve the appropriate Environment Agency which regulates the disposal of radioactive waste. Close liaison with the Environment Agencies may be necessary

**LC35(1)** provides for the making and implementing of arrangements.

**LC35(2)** provides for the production and implementation of decommissioning programmes for all plants.

**LC35(3)** gives the power to the Executive to specify the arrangements or programmes for approval. Arrangements are not generally approved but high level decommissioning programmes are often approved. These generally include milestones but few details.

**LC35(4)** ensures that no approved arrangements can be altered without further approval from the Executive.

**LC35(5)** ensures that licensees arrangements include the use of decommissioning stages. This clause gives the power to the executive to specify that the Licensee does not commence a stage or proceed from one stage to the next without the consent of the Executive.

**LC35(6)** gives the power to the Executive to direct that decommissioning commences but only within the licensees' arrangements and programmes. This power has never been used to date. The Licensees' own arrangements usually provide derived powers in this area.

**LC35(7)** gives the power to the Executive to direct the Licensee to halt decommissioning and not recommence without the consent of the Executive. This power has never been used. The Licensees' own arrangement usually provides derived powers in this area.

#### **4. Guidance on arrangements for LC 35.**

4.1 The following list of elements of arrangements provide NSD's views on what the Licensee's arrangements might be expected to contain to comply with the LC. The list is neither exclusive nor exhaustive and will be subject to review and revision in light of

operational experience. 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].**

4.2 Arrangements should be provided to comply with LC 35.

4.3 Arrangements shall address the licence condition requirements.

4.4 The arrangements can be defined as a single document or suite of linked documents which provide the procedures and instructions to ensure that regular and systematic examination, inspection, maintenance and testing of all plant items and systems that may affect safety takes place.

4.5 Arrangements shall include a comprehensive policy and strategy for decommissioning.

4.6 Arrangements should include clear, unambiguous decommissioning milestones and targets linked to the decommissioning strategy for implementation through decommissioning programmes.

4.7 Arrangements should include decommissioning programmes development and review processes which take into account interactions with existing facilities, requirements for new facilities and the overall site decommissioning strategy.

4.8 Arrangements should include a classification system for decommissioning activities based on safety significance (not just risk based need to include systematic reduction in hazard) and there should be a review process for each classification, ie robust peer review INSA/NSC for most significant classification and includes an independent review of classification.

4.9 Arrangements should allow NSD to specify, agree or acknowledge or opt in out of regulatory hold points as appropriate.

4.10 A regulatory interface process shall be in place to ensure provision in decommissioning safety documentation submission programmes for adequate time for assessment.

4.11 Arrangements should include a process for tracking and progressing technical queries, concessions, omissions and modifications arising from decommissioning.

4.12 Arrangements should require a Quality plan for decommissioning activities which addresses: all hazards (nuclear, conventional, environmental) including procedures that cover

- 1) what needs to be done
- 2) how it is done
- 3) how it is closed out

4.13 Arrangements should require that there is clear linkage to a live safety case to show impact of decommissioning on plant/site safety case (see T/AST/051, section 10).

4.14 Arrangements should recognise that all other licence conditions continue to apply during decommissioning.

## **5. Guidance on inspection of arrangements**

5.1 Part 5 of this guidance is to assist inspectors in judging the adequacy of the licensee's arrangements. The following list is neither exclusive or exhaustive and will be subject to review and revision in light of operational experience. It does however, provide a hit list of aspects of LC 35 that can be examined during routine inspections

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

5.3 Examine the arrangements 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 incorporated and validated.

## **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. The following list is neither exclusive or exhaustive and will be subject to review and revision in light of operational experience. It does however, provide a hit list of aspects of LC 35 that can be examined during routine inspections.

6.2 Sample, check site has decommissioning programmes in place. The expectation is that all plants will have plans and programmes in place even if they are still operating. These will be more detailed as decommissioning approaches and is being undertaken.

6.3 Sample, check safety classification of decommissioning activities, challenge as necessary.

6.4 Sample, check licensee has process in place for progressing issues arising as a result of decommissioning including technical queries, concessions and omissions.

6.5 Sample, check the licensee's control of decommissioning including:

- 1) whether responsibilities are clearly defined and recognised
- 2) whether suitable and sufficient instructions have been written for significant on-site activities
- 3) whether control and supervision of staff and contractors is adequate
- 4) whether the supporting systems of work address all hazards.

6.6 Sample, check time limit for completion of decommissioning activities and that there are no undue delays. The licensee needs to be aware of interactions between decommissioning plant and other facilities. Delays in completion could have critical impact on other plants or decommissioning programmes.

6.7 Sample, check decommissioning progress and that items/ areas associated with the decommissioning have been completed or adequately progressed to enable decommissioning to be completed or progressed to the next stage. Areas to consider include:

- 1) training (SQEPs)
- 2) documents including, drawings, instructions and procedures
- 3) maintenance schedule updated to reflect new status
- 4) Safety case report, summary or overview has been updated.

6.8 Since decommissioning involves removal of radioactive waste from facilities (see Guidance on LC 32). Check on waste storage and transport.