

NUCLEAR SITE END STATES

Briefing Paper K

September 06

The Nuclear Decommissioning Authority (NDA) is currently reviewing site End States in consultation with stakeholders. The review aims to identify the physical condition that a nuclear site should be left in when the NDA has finished its business. The End State (or states) will influence the end uses that are possible on a site. The outcome of the review will be incorporated into revised NDA strategy during 2008.

This briefing paper outlines:

- the importance of early local authority input
- the objective of the review of site End States
- the impact on site clean-up and delicensing
- the NDA's process for defining site End States
- getting involved and request for feedback

The Importance of Early Local Authority Input

The NDA review raises important issues for local government, including future land use and the extent to which radioactivity is removed from a site. It is suggested that the relevant local authorities get involved as early as possible in the current NDA site End State definition process.

The reasons for doing so include:

- Preferred end uses are important in shaping the approach to clean-up at a site and whether the site, or parts of it, will be delicensed.
- Suggestions for site end uses need to be assessed for conformity with the local development plan, as informed by Community Strategies, Sustainability Appraisal and Strategic Environmental Assessment.
- The NDA and Site Licence Companies need to understand local authority views.
- Although potentially not for many decades, planning decisions relating to the end use or uses of a site will ultimately be required.

Objective of the Review of Site End States

The Government's 2004 policy statement¹ on decommissioning leaves open the choice of End States for nuclear sites. It is not necessarily expected that sites will be restored to a 'green field' status (ie for 'unrestricted' use). Indeed, it is possible that a site End State may be mixed, consisting of a number of areas remediated to standards appropriate for different potential end uses.

The NDA has asked each of its sites to re-examine End State possibilities to identify "opportunities to deliver benefits from this more flexible approach"².

Potential site end uses are envisaged to include:

- industrial and commercial
- electricity generation
- waste management
- research
- nature conservation
- recreation
- residential
- agriculture

The NDA states that the objective of the current project is, for each site: "... to come up with a solution that satisfies the desires of the community (the stakeholders), is technically and commercially feasible and is aligned with the national perspective."³

The NDA's process for seeking to achieve this objective is outlined below. Before doing this, the next section considers the impact of different end uses on plans for clean-up and delicensing of the site.

Impact on Site Clean-Up and Delicensing

Preferred end uses are important in shaping the approach to clean-up at a site and whether the site, or parts of it, will be delicensed.

The requirements for remediation of contaminated land may be different, depending on envisaged end use and foreseeable pathways to radiation exposure⁴. For example, in some circumstances land earmarked for industrial use and waste

¹ DTI, 'The Decommissioning of the UK Nuclear Industry's Facilities', 2004.

² NDA, 'Site End State Definition Process', Doc EGR015, July 2006.

³ As above, NDA, July 2006, p3

⁴ For more detailed discussion see, Safegrounds Learning Network, 'Review and Commentary on Site End Points and Radioactively Contaminated Land Management', Report by Enviros, July 2005.

management can be left with higher residual contamination than land marked for residential, recreational or agricultural use.

It should also be noted that some end uses are only practicable on land that is not licensed or has been delicensed. These include residential, recreational and agricultural uses. Other uses are possible on land that has not been delicensed. Delicensing involves the release of land from regulation under the Nuclear Installations Act (NIA65) and the release of the operator of the facilities from their period of responsibility for any nuclear liability.

The NIA65 contains a requirement that there should be “no danger” from ionising radiation on a site before delicensing can occur. The HSE interprets this criterion as being met if an operator can demonstrate that any residual radioactivity, above the average natural background, can be satisfactorily demonstrated to pose a risk of death to an individual using the site of no greater than one in a million per year⁵.

If a site is not remediated to the extent that enables delicensing, there are likely to be long-term ‘stewardship’ needs to ensure that land use remains consistent with levels of contamination and risk.

The NDA Process for Defining Site End States

The NDA’s review of site End States consists of four main stages:

(i) Stakeholder consultation on end uses

The aim is to arrive at a hierarchy of preferred end uses for a site as a result of dialogue between the Site Licence Company (SLC) and stakeholders. The NDA highlights that it is important that a wider range of local stakeholders than those already represented on the Site Stakeholder Group (SSG) is consulted⁶. The process of consultation is to be facilitated by the SLC on behalf of the SSG. It is anticipated that each SSG will review consultation responses and arrive at a hierarchy of end uses that represents the desires of a broad range of local stakeholders. The indicative date for completing this stage is by October 06.

(ii) End State development

The aim is to define a range of End States that match the hierarchy of preferred end uses. This work will be undertaken by the SLC and will include assessment of the technical, safety, environmental and economic issues associated with remediation of

⁵ HSE, ‘HSE Criterion for De-Licensing Nuclear Sites’, May 2005.

⁶ As above, NDA, July 2006, p5.

the site to enable particular end uses. The indicative date for completing this stage is by February 07.

The NDA states that: "An important requirement of this stage is to underpin the feasibility of the end uses put forward by the stakeholders. As part of this, it may be necessary to consult with the relevant planning authority to identify any planning restrictions and to assess the commercial viability of any initiatives proposed for the site".

(iii) Stakeholder consultation on End States

The aim is to identify preferred End States, which End States stakeholders can live with and which are unacceptable, and to understand the reasons for these views. This is to be achieved through a second period of consultation with stakeholders. The NDA expects SLCs to explain the costs, duration, risk, safety and environmental implications of implementing different End States, and the reasons why some options are more preferable than others. The NDA expects SSGs to provide it with feedback on the acceptability of different End States to the wider stakeholder community. The indicative date for completing this stage is by April 07.

(iv) Reconciliation

The aim is to arrive at a coherent approach for defining site End States for incorporation into the next version of the NDA Strategy. In this stage the NDA will review the outputs from consultation and reconcile these with the outcomes of other strategic initiatives to ensure that national as well as local requirements are addressed. The NDA states that completion of this stage must be completed by September 07 to allow the output to be incorporated into NDA strategy.

The wider issues to be taken into account include:

- Implementation of commitments in NDA strategy, in particular determining better approaches to the interim storage of Intermediate Level Wastes and the disposal of Low Level Waste (LLW)⁷.
- Developments in national energy and waste policy, including the energy review, the LLW policy review and the Government's response to CoRWM's recommendations of the long-term management of higher activity wastes.

⁷ See NuLeAF e-bulletin 1 for an outline of how these issues are being addressed (www.nuleaf.org.uk)

Subsequent Steps

The draft NDA Strategy containing the proposed End States will be subject to consultation, probably in Spring 08. Following consultation, the draft Strategy will be finalised and submitted to Government for approval.

Following Government approval, End State definitions will be incorporated into site Life Time Plans. Periodic reviews of the definitions will occur via review of NDA strategy.

Getting Involved and Request for Feedback

This briefing has outlined why it is important for the relevant local authorities to get involved early in the NDA site End State definition process.

As the NDA points out, stakeholders have multiple opportunities to input into the process. The first stage – identifying a hierarchy of preferred site end uses – is due to come to a close by October. If authorities that host NDA sites are not already involved they should contact the relevant Site Licence Company to initiate discussions.

NuLeAF would like to receive feedback from member authorities about involvement in the site End State definition process, including views on strengths and weaknesses of the process. NuLeAF will consider requests for further briefing materials or for issues about the process to be raised with the NDA.

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