

October LLW Policy Review Workshop – A Small Users Perspective

The purpose of this workshop was to comment on the draft paper for consultation on the future policy for Low Level Waste (LLW) Management in the UK. The draft was produced following an initial workshop in April 2005. It is anticipated that the consultation document will appear in January 2006, followed by publications of the final policy in July 2006.

Although the needs of small users received much attention at the first workshop, consensus of the second workshop is that these needs have not been addressed in the draft paper. This summary focuses on Small User issues first, before going on to consider more general points raised during the workshop.

Compared to the nuclear industry, small users generate low volume, short half life wastes. In the past the nature of the waste has allowed for disposal to landfill, special precautions burial and incineration. In the hands of commercial operators, faced with local pressure against taking radioactive materials, and the ensuing costs, the number of these routes has diminished progressively. It is crucial to small users' interests that a policy paper makes a commitment to preserve the routes. The current draft makes no reference to this, but instead focuses on the role of the Nuclear Decommissioning Authority (NDA) and its responsibilities in the management of LLW. Although government may change it, the current remit of the NDA is to manage LLW arising from the decommissioning of 19 UK nuclear licensed sites. Small user LLW disposal routes are therefore not addressed. The small user focus group at the workshop has asked that this be inserted in the document via a new section on "The role of DFRA and the devolved administrations in providing for Non Nuclear Industry Users LLW management needs". In this section it should be stated that DEFRA have a responsibility to provide Non Nuclear Industry Users (NNIUs) with adequate and cost-effective routes and facilities for the management and disposal of LLW. In this context "management" is intended to refer, not to local management such as decay storage, but to regional or national facilities such as waste conditioning/recycling plants and incinerators. Furthermore, DEFRA should take the lead on developing strategy for LLW management in the NNIU sector, which might include preparing generic BPEO assessments which can apply to groups within the sector (e.g. universities and hospitals).

The current draft puts the onus on NNIUs to "act collectively to make their requirements known to the NDA, local planning authorities and the regulatory bodies". It was felt that this was not achievable and unlikely to be fruitful unless the emphasis was changed to put a responsibility on DEFRA and the devolved administrations to set up a mechanism for consultation with the NNIUs. This might be a role to be taken on by the Small Users Liaison Group and the Scottish Non Nuclear Users Group.

Within the section dealing with requirements for preparation of LLW management programmes, there is an obligation to assess all available options which, it is stated, is currently achieved via the BPEO analysis process. It was pointed out that currently there is no requirement on NNIUs to carry out BPEO analysis.

Part of the same "requirements" section considered consultation and public involvement, where there is a requirement to consult widely with communities on proposed LLW management programmes drawn up by waste generators and owners. It was highlighted that public consultation is not required for NNIUs when applying for an RSA Authorisation – simply that the information is sent to the relevant local authorities where it is available for public scrutiny. It was felt that a requirement for public consultation by a NNIU on their RSA Authorisation application could be detrimental to society. A hospital or university in a large town or city, for example, may well fail to gain public approval no matter how justified their practice or how small the risk. NNIU should not be obliged to enter into public consultation on the scale suggested but should still be required to justify their proposals to the regulator through Best Practicable Means (BPM)

assessment and an environmental impact assessment. It was further requested that there be a statement in the policy identifying a responsibility to ensure that local public opinion cannot override a local, regional or national need for a particular LLW management or disposal option.

A "Presumption towards early disposal of LLW" indicates a preference for disposal over storage. This was an outcome of the April workshop, applicable to the nuclear industry only. It was requested that the statement be changed to allow for the decay storage of short half life radioactive waste, at least by the NNIUs.

The following are more general comments made on the draft which are not specific to the NNIU sector.

- The paper could benefit from an introduction putting the policy review into context and defining the guiding principles on which it is based.
- There are several internal inconsistencies and inaccuracies which need to be removed.
- Language used should be appropriate to the target audience. The current draft was considered to be inaccessible to a wider public with no background knowledge of the subject.
- Numeric activity limits should not be used in a policy document. Instead it should refer to taking a risk-based (or risk-informed) approach to determining options for management/disposal. (Indeed, the word "risk" was thought to be inappropriate and that the policy should refer more to "safety assessment"). A compromise could be found by using risk to determine radionuclide-specific activity levels (as in the BSS) rather than a blanket figure such as 0.4Bq/g. This approach might also be used to define what is meant by "radioactive".
- The draft lists five disposal options for LLW (consign to Drigg, disposal to an area or future facility adjacent to a nuclear licensed site, burial at point of arising, special precautions burial at a landfill, and VLLW disposal to unspecified landfill). The wording implies that these are the only options, which is not true. This could easily be remedied by stating that the options include the above list. It is also inaccurate to state that sea disposals is not permitted as the offshore oil and gas industry return NORM waste to the sea bed without it ever being brought ashore.
- The draft details a 4-step waste management hierarchy to be adopted: avoid creating waste, reduce arising to a minimum, re-use and/or recycle, and finally disposal. It was suggested that "management" should be inserted between the last two – presumably in the sense of remediation as all the steps are management in its broad sense.
- There should be a reference to the consideration of coastal erosion/climate change on the safety of disposal sites e.g. Drigg.

Some workshop time was devoted to subjects related to the LLW draft paper rather than to the paper itself. In particular there was a presentation (by the EA) and a paper on the proposed regulation of the LLW repository at Drigg which, at current capacity, will be full by 2007. Drigg is now operated by British Nuclear Group Sellafield Ltd (BNGSL) under contract to the NDA. BNGSL's safety case was split into pre- and post – closure assessments. The conclusion was that the facility presents, and will continue to present, a low risk to the environment during the time in which it is managed. Post closure (planned for 2150), however, the risks are estimated to be high ($\sim 10^{-4}$ compared to the "safe" 10^{-6}). Various options need to be considered to reduce this risk e.g. by improving sea defences, augmenting the concrete containment, restricting future waste categories or removing the long lived alpha waste which is driving the risk up. It is appropriate to note at this point that consignment of waste to Drigg is considered to be disposal, and is regulated as such. Were it to be storage, it would, as a licensed site, be regulated by the NII rather than the EA. Public consultation has now closed and EA anticipate issuing a new Authorisation, with disposal limits unchanged but with a number of improvement conditions, early in 2006. The NDA as owners of Drigg are looking at the future of the site. Their options include early closure and the opening of other sites in competition (possibly at Dounreay) in

order to reduce Drigg charges which they see as too high. To counter the latter it was pointed out that the high costs associated with disposal to Drigg forces users to manage their waste better. This is not a welcome strategy for NNIUs for whom Drigg might be a last resort which is becoming too expensive. Others argued the Drigg is one of the cheapest of its type in Europe.

There was some discussion on whether nuclear industry and non nuclear industry waste should be kept separate and have different disposal solutions. This is on the assumption that a facility for disposal of NNIU waste will be more acceptable to the public if they see it has been generated for a "good reason" e.g. at a hospital. It would, of course, be more rational to segregate on the basis of the environmental impact of the waste rather than on its origin. Given that much of the NNIU sector waste is low volume, short half-life beta/gamma, segregation on the basis of risk may, for the most part, achieve the same outcome.

The subject of definitions was also raised for discussion, and the LLW Steering Group had produced a paper on the definition of LLW and its relationship to clean-up and disposal safety standards. Although a useful summary, there was a hope that this might have been an opportunity to re-define what is meant by radioactive waste in a way which could be applied consistently to all radiation safety legislation and standards.

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