

*Joint response to ‘A Public Consultation  
on Policy for the Long Term Management  
of Solid Low Level Radioactive Waste in  
the United Kingdom’*

*from*

*Allerdale Borough Council  
Copeland Borough Council  
and  
Cumbria County Council*

*May 2006*

John Howley  
Radioactive Substances Division  
Department for Environment, Food and Rural Affairs  
3/G25 Ashdown House  
123 Victoria Street  
London SW1E 6DE

Dear Sir,

**A Public Consultation on Policy for the Long Term Management of Solid Low Level Radioactive Waste in the United Kingdom**

Thank you for giving the Local Authorities of Cumbria County Council, Allerdale Borough Council and Copeland Borough Council the opportunity for comment. We welcome the full public consultation approach adopted by Department for Environment, Food and Rural Affairs (DEFRA) in developing its recommendations for the Government to embed in a future UK Low Level Waste policy. We have endeavoured to look at the key questions from a national, regional and, particularly, from a more holistic Cumbrian point of view. You will appreciate that with four nuclear licensed facilities – Calder Hall, Sellafield, Windscale and the LLW Repository near Drigg – and in addition some 60% of the UK's nuclear legacy in the county, the issue of Low Level Waste (LLW) is of great importance to our communities.

Cumbria has played a significant part in the nation's Low Level Waste requirements, through its leading role in the UK's nuclear industry, and our communities are amongst the few in the UK with a real understanding of the issues under consultation. Therefore, we hope that DEFRA will give our response the weighting it deserves.

However, we would like to express our disappointment that the consultation paper pays little attention to the scale of the problem that Cumbria faces in managing the LLW that will arise within the county.

**Waste Capacity**

Our main concerns are about the assumption in the consultation paper that there are 800,000 cubic metres of authorised capacity available at the existing LLW Repository (LLWR) near Drigg. This is a misunderstanding, deriving from a figure quoted some time ago by British Nuclear Fuels Limited, when asked to estimate the physical capacity of the remaining land within the site. In fact, there is only around 20,000 cubic metres of capacity left, which will be full by mid-2008, and this is recognised by the licensing regimes of the Environment Agency and the Nuclear Installations Inspectorate.

The misunderstanding has implications throughout the consultation paper and the manner in which it addresses its proposals. By assuming that the site has existing capacity it is not treated as just one of the options and its further use is not questioned. We need to seek a level playing field in which all possible

new facilities are to be considered in the same way through a transparent and consistent process.

The three Councils agree that future arisings of LLW from decommissioning and the potential arisings from any nuclear new-build would greatly exceed the current available capacity. Currently, the management of radioactive waste resulting from the decommissioning programme is project-driven, which is thus largely influenced by time and cost. This approach is often carried out at the expense of minimisation of both volume and activity. It is important that the nuclear industry is strongly encouraged to minimise their arisings and look at efficient methods of decontamination, this would be helped by more appropriate waste management and treatment planning methods. A robust system of disposition mapping, which took into account each stage of a waste products life, from cradle to grave, including the pre-treatment needed, BPM assessment, interim storage and final disposal route, should be incorporated during the design stage at the outset, this would reduce the risk of inadequate resource and capacity for the future mapping of the waste.

Cumbria is concerned that the possible use of the Repository near Drigg as a UK national asset, is not raised as one of the questions, but is taken as an assumption. We believe that there should be an open and objective process for considering all potential national or regional sites using consistent criteria. Given the limited capacity of the site, the sea level rise/coastal erosion issues and the considerable amounts of LLW arising in Cumbria alone, the site should not be used to accommodate waste from other nuclear sites in the UK.

We all support the view that the remaining capacity at the LLWR near Drigg should meet local community (Cumbrian) needs, including local decommissioning and reprocessing waste requirements, rather than be assumed to provide a single solution to LLW and decommissioning waste management. In particular, Copeland Borough Council has formally taken the view that no further increase in capacity at the LLWR should be allowed until the industry reaches agreement with that Council on a package of "offset" measures to compensate for the presence of a radioactive waste facility in its area.

### **Hosting Waste Sites**

Compensation and recognition of Cumbria's strategic and national role in the nuclear industry has been minimal - the three Councils do not accept the concept that it is equitable for West Cumbrian communities to host all LLW generated in the UK, just because they have received benefits from previous nuclear operations. Nuclear facilities in West Cumbria were installed to meet a national need and not a local need; the benefits have, therefore, been national whilst most of the detriment has been local.

Cumbria believes that a key issue that needs to be addressed is the siting and location of waste storage and disposal; the proximity principle requires that waste is managed as near as practicable to where it originated. Integral to the debate is stakeholder involvement and public acceptance, through education and local empowerment. We take the view that the local

community should have a veto over the import of radioactive waste into their communities and that no community should be an unwilling victim. We believe that the presence of radioactive waste creates significant detriments for our communities and no community should have such detriments forced upon them.

Furthermore, the three Councils would have serious concerns if one of the nuclear licensed sites in the county were used as a centralised interim storage location. This may prejudice a future siting decision for a repository, or other permanent waste facilities, and concentrate perceived hazard and risk, plus associated stigma, in our area to our further detriment. Increasing the amount of the UK's waste stored in West Cumbria will increase the likelihood of a disposal facility being located here permanently, as on the grounds of cost, transport and increased risks; it is unlikely to be moved twice. Both Copeland Borough Council and Cumbria County Council have reached a consistent policy that additional LLW (and ILW) from outside this area should not be moved into the county.

### **Non-Nuclear Industry Waste**

Cumbria recognises that the current management arrangements for non-nuclear industry LLW, for example waste from hospitals and educational establishments, are that it is accepted at the LLW Repository in the county. The volume and activity of these wastes, whilst comparatively small, does at present amount to some 7% of the total volumetric waste sent to the Repository and would, therefore, have some impact on capacity.

We would again like to emphasise that the remaining capacity at the LLWR should meet local decommissioning needs rather than national arisings; furthermore, non-nuclear industry LLW should be disposed of as close as practicable to its origin. Therefore, we support the concept of greater responsibility at local level for these types of waste and communities need to make provision via regional and local planning policies in order to deal with their own waste. However, it is important that there are no short cuts made with regard to public safety and, therefore, the relevant regulatory bodies should conduct the same high level of scrutiny.

### **Very Low Level Waste (VLLW)**

The three Councils support the idea of a more consistent definition of VLLW in order to bring it in-line with the definition of LLW. The use of specific activity based on mass is a more practically applicable approach.

### **Coastal Erosion**

We are concerned by British Nuclear Group's assessment, which predicts that destruction of the Repository by coastal erosion is possible in as little as 500 years from now. Regardless of the calculated risks, the potential for the destruction of the Repository by coastal erosion means that disposal of long-lived LLW on the site might be creating undue burdens on future generations.

Due to the predictions of climate change, the risk of coastal erosion, coupled with the current estimated longevity of the LLWR site, is great enough to

seriously doubt the viability of the site's existence in its current operational form, i.e. as a final disposal site for LLW. We request that the Environment Agency urge British Nuclear Group Sellafield Ltd. (BNGSL) to carry out a Sustainability Appraisal into the alternative of changing the current operational status and future capping strategy into one of safe interim storage until a national disposal solution is established. The image of radioactive waste falling into the Irish Sea in 500 years is one that clearly suggests that the LLWR is not situated in the safest and most sustainable location. Although outside the scope of this review, it is evident that a location away from the coast should be considered and a study into suitable locations should be undertaken.

The international commitments set out in the Process & Considerations Document, paragraph 22.5 (c) of the Rio Declaration (UN 1992) notes that states, in co-operation with relevant internal organisations, where appropriate, should:

“Not promote or allow the storage or disposal of high-level, intermediate-level and low-level radioactive wastes near the marine environment unless they determine that scientific evidence, consistent with the applicable internationally agreed principles and guidelines, shows that such storage or disposal poses no unacceptable risk to people and the marine environment or does not interfere with other legitimate uses of the sea, making, in the process of consideration, appropriate use of the concept of the precautionary approach.”

In addition, the UK Government has reflected the OSPAR agreements in the current UK Strategy for Radioactive Discharges, 2001-2020, “The Strategy” (DEFRA 2002). The main aims of the Strategy are to achieve:

- The progressive and substantial reduction of radioactive discharges and discharge limits.
- The progressive reduction of human exposure to ionising radiation from radioactive discharges, such that a representative member of the critical group will receive a mean dose of no more than 0.02 millisieverts per year (mSv y<sup>-1</sup>) due to liquid discharges to the marine environment from 2020 onwards (this is not a limit but a projected consequence of achieving reduced radioactive discharges); and
- The progressive reduction of concentrations of radionuclides from radioactive discharges in the marine environment such that by 2020 they add close to zero to historic levels.

In order to mitigate the risk, substantial engineered coastal defences would be required, which does not lend itself to an effective sustainable solution, as a constant battle against coastal erosion would be a burden to future generations. Indeed, we believe that the current uncertainties should rule out any further increase to disposal at the site and it should be considered as a storage site until these issues are resolved.

## **Historic Waste**

The three Councils believe that historic disposals at the Drigg facility should not be ignored, and stakeholder engagement should be undertaken on the issue of the inadequate inventory of the tumble-tipped trenches. These affect the radiological capacity of the site and the Councils have already urged the Environment Agency and the Nuclear Decommissioning Authority to fast-track a comprehensive investigation of the radioactive burden of the trenches.

Consideration should be given to whether these historic disposals are removed, repackaged and stored in a way that is consistent with current standards. We recognise that it would be unreasonable to expect historical practices to fully comply with present day guidance and modern standards, but there may be reasonable options to optimise the performance of the site as a whole and BNGSL needs to demonstrate it has considered, and implemented them, where appropriate.

## **Costs**

Cumbria believes that there is conflicting information on where the LLWR sits in terms of comparative costs. Indeed, the assumptions that have been made in the Regulatory Impact Assessment in estimating the costs of continued use of the LLWR site compared with other facilities need to be considered in more detail.

We understand that methods of disposal can vary significantly depending on local circumstances. For example, tumble-tipping may be acceptable in parts of the U.S., thus bringing down costs, but would raise significant concerns in a more densely populated country as our own. Related to this, all three Councils believe that the UK should be seeking to maximise waste minimisation, recycling and free release. This is not best served by reducing the cost of disposal.

We believe that consideration should be given to reviewing the cost of disposal at the LLWR, as any net increase in disposal income should be used firstly to fund a local offset package, and then to provide additional funding for decommissioning work.

## **Waste Hierarchy**

Cumbria supports the message of waste minimisation, reuse and recycling, and that the waste hierarchy is reinforced within the management of LLW as a result of the UK decommissioning programme. There is also a need for greater use of assessment by Best Practicable Means for minimisation and decontamination.

The three Councils support the use of the waste hierarchy (as defined in chapter 3, paras 15-16 of the consultation paper), and were pleased to see that the issue of reduction in radioactivity would be encouraged along with volume reduction. It is important to recognise the significant advantages of volume reduction with regard to decommissioning-type low level waste arisings. Non-compactable low level wastes are generally packaged in ½ height iso-freight containers destined for the LLW repository in Cumbria.

These are often no more than 50% full before grouting. There may be operational reasons for this being the optimum, but we believe that efforts should be made to increase this figure to 70% or 80% by better planning, resources and facilities, which would increase the remaining capacity lifetime significantly.

We recognise that the process of incineration minimises waste volumes effectively; however, there are significant concerns over its suitability in populated areas regarding public health, social intrusion and public perception.

### **Waste Plans & Strategy**

Cumbria supports the concept of producing LLW Waste Plans. However, we believe that this needs to be carried out for all stages of the waste process and not just at a higher level - the waste will arise at an individual decommissioning project level, and it is important that waste planning is achieved at this level and prior to project start-up.

We feel that it is important to have a tight, centralised control on the production of individual Integrated Waste Strategies (IWS) across the UK nuclear sites, so that it is indeed 'integrated' rather than 20 separate waste plans. This would be more apparent on the Sellafield site, which could have a Calder Hall IWS, a Windscale IWS, a Sellafield IWS and finally an LLWR IWS. It is our view that this would not be a practical solution to waste management.

### **Stakeholder Involvement**

It is Cumbria's view that, as a key stakeholder, it is important that our communities are involved at the earliest opportunity, in an open and transparent consultation, in order for the local community to contribute to the whole local LLW decision-making process, from start to finish, and not just be informed of progress. As the three Councils are democratically elected to represent their citizen's interests, we need to be an integral part of the decision-making process in our role as community leaders. Furthermore, we would like to encourage the NDA to co-ordinate its public and stakeholder engagement processes, in part, with those of the planning authorities in preparing their Local Development Frameworks.

### **Community Benefit**

Copeland Borough Council and Cumbria County Council, would like to express their surprise and disappointment that the consultation paper appears to virtually omit the subject of community benefits and volunteerism. This issue was strongly raised at both the stakeholder events. Indeed, at the second event a conclusion was drawn that the wording relating to these issues in the draft policy paper, was not strong or clear enough, and alternative wordings were discussed. Thus, the consultation document does not reflect the feeling of the stakeholder workshop in this respect. Copeland and the County Council consider that the consultation on the review of policy should pay attention to the matters of community benefits packages to offset the impacts that arise from hosting LLW facilities and to the issues of community veto and volunteerism.

Indeed, it is Copeland's view that it is important to have prior agreement of an 'off-set package' in the form of an inter-generational community endowment to ensure long-term local community sustainability for the lifetime of the LLW waste. This endowment would be held in such a way as not to be affected by any change in central Government, political party, local government and/or boundary.

Moreover, Copeland believe that the local community represented by the Local Authorities should have a veto over the import of radioactive waste into their communities and that no community should be an unwilling victim.

Whilst none of Allerdale Borough Council's communities are in direct proximity to the LLW Repository, they share Copeland's views on community veto, volunteerism and offset packages, in that they would like to see any consultation on policy review cover these issues.

### **Regulation**

Cumbria County Council in particular, would like to express its surprise and disappointment that the consultation paper appears to confuse the separate roles of the planning regime, which determines where waste management developments take place, and that of the other Regulators, who determine the technical operational details of these developments. We are also disappointed that the paper pays so little regard to the requirements of the planning system and the local planning authority's role as regulator.

### **Policy Setting**

Cumbria County Council in particular, would like to express its concern over the potential conflict of interest in the proposal that the Nuclear Decommissioning Authority's Strategy and Annual Plans will provide Government policy. The NDA would be preparing policy whilst at the same time being, in effect, the applicant for planning permission.

### **Conclusions**

Thank you for providing a comprehensive, open and transparent process within which to consider and develop the future UK policy on low level radioactive waste management.

Bearing in mind the particular importance of the Low Level Waste Policy issue to Cumbria, we would like to request a meeting with DEFRA to discuss our joint response.

Your consultation paper asks 13 specific questions and we append the Cumbria County Council response as Annex 1.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Stoddard', written in a cursive style.

Councillor Tim Stoddard  
Leader  
Cumbria County Council

A handwritten signature in black ink, appearing to read 'Woodburn', written in a cursive style.

Councillor Elaine Woodburn  
Leader  
Copeland Borough Council

A handwritten signature in black ink, appearing to read 'Jim Musgrave', written in a cursive style.

Councillor Jim Musgrave  
Leader  
Allerdale Borough Council

**A PUBLIC CONSULTATION ON POLICY FOR THE LONG TERM  
MANAGEMENT OF SOLID LOW LEVEL RADIOACTIVE WASTE  
IN THE UNITED KINGDOM**

**RESPONSE FORM**

**7.**

**Department for Environment, Food and Rural  
Affairs**

**Department of Trade and Industry**

**Scottish Executive**

**Welsh Assembly Government**

**Northern Ireland: Department of the Environment**

**28 February 2006**

***Q1: Given that future arisings of LLW will exceed currently available capacity, do you agree that a change in LLW management policy is necessary? Have we identified the correct guiding principles for such change: flexibility of approach; use of a risk-informed approach to ensure safety; and additional emphasis on minimisation of arisings.***

Whilst agreeing that change is needed we consider it should be much more fundamental than is suggested. New policy should take into account the fact that the site near Drigg is not authorised as a national asset.

The approach in the consultation paper is considered to be flawed because of a misunderstanding about the existing volumetric capacity of the Low Level Waste Repository near Drigg in west Cumbria. The existing facilities have remaining capacity for around 20,000 cubic metres not 800,000. Please see Section 3.3 in the NDA Strategy (April 2006). There are also concerns regarding the site's radiological capacity.

It is essential that Government ensures that the search for, development and Sustainability Appraisal of new LLW facilities are fast-tracked.

The Regulatory Impact Assessment and cost estimates need to be reviewed in the light of the misunderstanding.

***Q2: Have we identified the correct requirements for the production of LLW management plans?***

Yes, obviously these will require Environmental Impact Assessment. However, we would like to see greater emphasis given to best practice for waste minimisation, re-use on-site and recycling. Reference could be made to the work of WRAP.

***Q3: Is use of the waste hierarchy, as defined, the right way of securing LLW minimisation?***

The differences between the waste hierarchy set out in the consultation paper and that in the National Waste Strategy need to be explained and clarified. We are disappointed that the current review of the National Waste Strategy has not addressed the issues of radioactive wastes.

Also see our comments on Q.2.

***Q4: Is best use being made of incineration of combustible LLW, for the minimisation of waste? If no, what are the obstacles for greater use of incineration?***

It seems likely that insufficient use is being made of incineration to reduce the volume of these wastes. However, all alternative technologies need to be assessed and we need more information before being able to comment properly. The American incinerators may be worthy of investigation.

Perhaps there should also be acknowledgment of the difficulties of public acceptance and in getting any type of incinerator through the planning system. Very detailed information about discharges would be needed, particularly from stacks, and about continuous, publicly available, monitoring of these eg instantaneous readings on a website.

It would seem sensible to also address the potential for combined heat and power schemes and for such energy from waste plants being available for residual wastes from other waste streams eg the commercial and industrial and municipal wastes?

***Q5: Should the proximity and minimisation of transport principles apply to the management of LLW of different kinds? If yes, do you have any observations on the way they should be applied?***

We strongly support these principles as part of a full Sustainability Appraisal. With regard to para 28 in Chapter 3 in addition to the misunderstanding about the capacity of this site its use as a national asset would conflict with these principles.

The need for on-site management and, as a last resort, rail transport instead of road needs to be stressed.

***Q6: Should the NDA also provide facilities for the disposal of non-nuclear industry LLW, where this is possible in conjunction with its main work on civil nuclear decommissioning and clean-up?***

Yes, subject to Environmental Impact Assessment and providing it is in conjunction with the other methods set out in Box 1.

***Q7: What should be the relative roles of national or regionalised facilities vis a vis local management schemes for LLW, and how might these depend on the nature and activity of the waste in question (for example, in considering transport impacts)?***

We consider that regional facilities will be needed to handle local wastes in accordance with Sustainability Appraisal. There needs to be recognition of the scale of the problem that Cumbria will face in trying to provide for the wastes arising within the county. (Sellafield, Windscale, Calder Hall and possibly Barrow and Eskmeals.)

***Q8: Is the availability of disposal routes for disposal of non-nuclear industry LLW diminishing? If so, please provide specific examples of difficulties and their consequences on operation of relevant industries. What steps can you suggest to address these problems?***

We are not aware of specific examples.

***Q9: Is it right in principle that local communities should take greater responsibility for the disposal of non-nuclear industry LLW arising from producers serving their communities, for example, hospitals and research and educational organisations?***

Yes, in accordance with the National Waste Strategy, relevant Regional Spatial Strategies and Local Development Framework policies.

***Q10: What role should national, regional and local planning strategies play in relation to the provision of facilities to dispose of such LLW (landfill and incinerators), particularly that at the lower end of the LLW activity range?***

The National Waste Strategy plus every Regional Spatial Strategy and Waste Development Framework need to have policies for LLW. In addition all regions and local authorities with nuclear facilities need to have policies for the management of decommissioning wastes.

Cumbria County Council has already expressed its concern to ODPM that relevant policies are not being included.

***Q11: Do you support the proposed redefinition of VLLW to make it compatible with the wider definition of LLW? If not, why?***

Awaiting clarification from the Environment Agency

***Q12: Do you believe that we have identified the correct options to be considered for the disposal of LLW, subject to the preparation of plans and safety cases that are acceptable to the regulators?***

Strongly disagree because of the misunderstanding about the capacity of the site near Drigg. All possible new facilities need to be considered on a consistent, equitable basis. This should take account of radiological capacity and long term suitability due to coastal erosion/sea level rise, plus be subject of Sustainability Appraisal.

There needs to be a level playing field for considering all possible new facilities, the site near Drigg should not be seen as an easy option.

***Q13: Should such LLW facilities be available to all waste producers including those in nuclear and non-nuclear industries, such as hospitals, research and educational organisations, and the oil and gas industries? If not, what should be the nature of any exception and why?***

Yes, but see comment on Q.6 and 7.