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**Our ref:** NO/2011/102552/01-L01  
**Your ref:** D136140  
**Date:** 18 February 2011

Dear Sir/Madam

**LOW LEVEL WASTE CAPPING EIA  
MIXED ENQUIRY - PRE PLANNING, SCOPING OPINION AND INFORMATION  
REQUEST  
STORAGE DEPOT, DRIGG, CUMBRIA**

Thank you for consulting us on the Scope of you EIA for the above proposal.

**Scope of EIA**

Within the EIA we expect the following topics to be investigated:

**Groundwater**

Published geological mapping indicates that the site is underlain by the Principal Aquifer of the Ormskirk Sandstone Formation at rockhead. This is shown to be overlain by superficial deposits, with glacial till shown to occur close to the surface. We have no record of any licensed or unlicensed groundwater abstractions in the vicinity of the site.

Groundwater contour information indicates that the water table is at approximately 10m AOD in the vicinity of the site. Based on Ordnance Survey mapping site levels vary between 10m AOD and 20m AOD. Therefore it could be expected that groundwater may be in close proximity to the surface in some areas. A groundwater contour map for the area has been attached.

The West Cumbria Permo-Triassic Sandstone Aquifer has been assessed as being at good chemical status and good quantitative status under the Water Framework Directive.

Further information on the chemical status of groundwater in this area can be found in the Environment Agency publication 'Groundwater Quality Review: Furness and

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West Cumbria' which is available for download from our website at <http://publications.environment-agency.gov.uk/pdf/GEHO1210BTHK-e-e.pdf>

The Environmental Statement should include an assessment of the hydrogeology of the site and consider the potential impacts of the development upon controlled waters and how these can be mitigated.

### **Biodiversity**

The site is located adjacent to the Drigg Coast Special Area of Conservation and Site of Special Scientific Interest. Consultation with Natural England is advised. The Habitats Regulations Assessment of the proposal will need to consider the groundwater interactions of the proposals, with the interest features of the protected site alone and in combination with the adjacent Vault 9 planning permission.

We are aware of groundwater monitoring being undertaken within the protected site under agreement with Natural England, the results of which may be available to inform the EIA, contact Nicola Evans at Natural England for further details.

We are also aware of a number of protected and UKBAP species present in this area, including natterjack toads, otters, northern dune tiger beetle and pillwort. It is advised that the applicant contact the Cumbria Local Records Centre at Tullie House, Carlisle Tel 01228 534781 email [enquires@tullie-house.co.uk](mailto:enquires@tullie-house.co.uk) to obtain up to date species records to support the EIA.

Salmon, sea trout, lamprey and eels all migrate via Drigg Coast up and downstream to the River Irt and their requirements must be considered in the EIA.

Seascale County Wildlife Site is located to the north of the grid reference provided and further consultation with Cumbria Wildlife Trust is recommended.

### **Waste Management**

We understand that the planning application will be submitted to Cumbria County Council in parallel with the Environmental Safety Case being submitted to ourselves (see comment below under Environmental Permitting Regulations). With regards to permitting radioactive waste disposal under the Environmental Permitting Regulations we will need to complete a full review of the Environmental Safety Case and complete relevant consultation before we could issue a varied permit for the site. We will therefore not be able to confirm our 'acceptance' of the proposals in full until we have completed this review, which is not anticipated to be until late 2012 / 2013. The planning application clearly need not repeat the information to be submitted within the Environmental Safety Case, we do however expect the planning application to refer to the Environmental Safety Case and to recognise the requirements of it and our permitting activities. There are clear interactions between the Environmental Safety Case and the planning application in that the capping scheme must meet the requirements of both. The requirements of the Environmental Safety Case will drive the required nature of the cap (e.g. shape, size, construction) and this will have impacts upon planning issues (e.g. visual impact, truck movement, noise, site access). An overview should be provided in the EIA of how the requirements of the Environmental Safety Case will be met and any resulting impacts addressed.

A key interest of the Environment Agency is also the 'constructability' of the cap and other closure engineering, in other words, demonstration that the cap as designed and specified can readily be constructed without breaching any relevant legislation

and to the satisfaction of the planning process. We will also be interested in management of the project during construction, so as to prevent any environmental detriment.

Other issues of relevance and interest to us which the planning application should address include:

- We will wish to see the restoration of the trenches factored into the construction as early as possible (subject to the Environmental Safety Case) and as soon as is demonstrated to be required by a BAT assessment. This means that appropriate restoration material must be available to allow the restoration of the trenches and the formation of the currently proposed single dome cap. We will therefore be interested in the environmental impacts associated with the proposed restoration scheme and how this will influence the rate at which the trenches can be restored.
- Any changes to the management of ISO containers resulting from the proposed higher stacking of wastes. Any changes to how loose infill will be used.
- Demonstration that environmental management systems will not be compromised by the proposed scheme. This would include surface water and leachate management and environmental monitoring infrastructure.
- The design of the caps functional systems may influence the shape and profile of the restored site.
- Demonstration that the restoration scheme can be completed without causing any other unacceptable environmental impacts (for example impacts to the adjacent SSSI water table)
- Demonstration that the scheme can be completed so as not to have any detrimental affect on in-situ wastes.
- Demonstration that the scheme can be delivered whilst protecting the environment and remaining compliant with relevant legislation (e.g. water and suspended solids management through construction). Demonstration that appropriate management and physical controls will be put in place and appropriately managed through to project completion.
- Consideration of appropriate environmental and other monitoring both before works, during and after. To identify any adverse impacts and to quantify and changes caused by the works. For example, impacts on groundwater levels, surface water contamination, dust levels and any resulting contamination.
- Demonstration that practical issues arising from the required cap design are adequately addressed, such that they can be delivered to met the requirements of the Environmental Safety Case (e.g. cap height, transport of large volumes of materials, noise).

### **Dust**

During operations and construction activity. Especially during filling on the skyline. This may include radiological assessments.

### **Surface water management and impact**

Especially the proximity of the site to ecologically sensitive areas, erosion of the cap, silt management after capping and the lack of appropriate restoration materials effecting vegetation growth.

### **Flooding and erosion control**

We will expect flooding and coastal erosion to be taken into account incorporating the predicted impacts of climate change.

### **Environmental Permitting Regulations and the Environmental Safety Case**

In our role as regulator of radioactive waste disposals at the Low Level Waste Repository our key interest is that the proposed development is consistent with the assumptions and specifications of an approved and accepted Environmental Safety Case for continued disposals at the site.

The cap design and construction must be capable of delivering the required functional specification as required by the Environmental Safety Case as approved and implemented following review and consultation by the Environment Agency. This review is due to occur in May 2011. As part of this review process we will clearly be interested in demonstration of the specification of the closure engineering in terms of longevity, robustness to weathering and human intrusion, minimisation of water ingress, deterrence of human intrusion, management of gases and stability. A key issue to us will also be the 'constructability' of the cap and other closure engineering, in other words, demonstration that the cap as designed and specified can readily be constructed without breaching any relevant legislation. We will also be interested in management of the project during construction, so as to prevent any environmental detriment.

Yours faithfully

**Amy Heys**  
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