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**Technical support to regulatory assessments of solid radioactive waste disposal facilities market engagement.**

**Further information document**

**Background**

The Environment Agency regulates the environmental safety of radioactive waste generated and disposed in England. Operators of nuclear sites in England, including radioactive waste disposal sites, must have a permit from the Environment Agency.

The Environment Agency anticipates technical support being required from suitably experienced consultants to support its future work in the following areas:

* regulation of the LLWR site in west Cumbria and other LLW disposal sites across England
* our current pre-application advice on, and future regulation of, geological disposal
* other matters relating to solid radioactive waste regulation

In order to assess its options for procurement of these expert consultancy services, the Environment Agency wish to engage with UK and international organisations that have recent and relevant experience of providing contracting support in these areas. Further information on each area is provided below.

Support to Regulation of the Low Level Waste Repository

The Low Level Waste Repository (LLWR) is a near-surface radioactive waste disposal facility, on the coast of west Cumbria. It is operated by Nuclear Waste Services (NWS) and permitted by the Environment Agency to dispose of solid low-level radioactive waste. The Environment Agency require operations at the LLWR to be supported by an Environmental Safety Case (ESC)[[1]](#footnote-2). The LLWR ESC is a live document and is also periodically updated by the operator and submitted for regulatory review. The next such update, the LLWR 2026 ESC, is scheduled to be submitted to the Environment Agency for review on 1st May 2026.

The review of the LLWR 2026 ESC will be detailed and will cover several different technical areas. It is estimated the review could require 2 to 4 years to complete. External support would increase the capacity of overall resource available for the review and also enable access to specialist skills not held by the Environment Agency, thereby increasing the robustness and efficiency of the review. Additionally, it would allow the review to be informed by external experience from relevant work undertaken elsewhere.

In addition to the LLWR, other sites in England are permitted for disposal of LLW and have similar regulatory requirements to the LLWR, including the need for periodic review of ESCs. Support to the regulation of these sites may also be required on an ad hoc basis throughout the lifetime of the contract.

Support to Geological Disposal

Nuclear Waste Services (NWS) is responsible for developing a geological disposal facility (GDF) in the UK for disposal of the most hazardous radioactive waste. The Environment Agency and the Office for Nuclear Regulation will jointly regulate any GDF, with regulation of the development, operation and eventual closure of GDF taking place in a staged manner. The developer is not able to progress from one stage to the next without first securing the relevant permissions.

The first stage in this process is for the Environment Agency to permit surface-based borehole investigations.

NWS is in the process of selecting a site or sites for surface-based investigation. The Environment Agency anticipates receiving a first permit application for these investigations around 2028. Prior to application, the Environment Agency is providing pre-application advice on the requirements for permitting a GDF and are scrutinising its work.

The Environment Agency are seeking technical support to supplement internal capability during both the pre-application stage and the review of the first permit application in the following areas:

* review of site descriptive models, including aspects relating to hydrogeology, geochemistry and structural geology
* review of site characterisation plans for deep borehole drilling
* review of data management strategies
* ESC development

Other support to solid radioactive waste regulation

The Environment Agency also require wider support in other areas including

* development and maintenance of internal guidance on the review of ESCs
* establishment of an expert advisory panel[[2]](#footnote-3) on the regulation of solid radioactive waste disposal including the identification and appointment of a panel members and management of their work programme.
* Environment Agency work on other radioactive waste management challenges across nuclear sites in England and Wales (e.g. the review of site-wide ESCs and waste management plans as part of the regulation of decommissioning and remediation activities).

The services would be required throughout the lifetime of the contract.

Technical Requirement

Examples of the type of services expected to be required include ongoing technical consultancy and advisory support services throughout the multi-year assessment of an ESC, and/or shorter projects which may involve providing written guidance and/or advice and assessments to support the ongoing and future regulation of solid radioactive waste disposal.

The Environment Agency will require contractors with expertise in the areas set out below. The market engagement will assist the Environment Agency to understand the range of expertise that exists in the market and how the contractor base is structured, for example single contractors with expertise in all areas or multiple contractors with specific areas of expertise etc.

1. Broad and deep knowledge and experience in delivering technical consultancy and advisory services on solid radioactive waste disposal.
2. Detailed technical knowledge and experience in specific fields for example; safety case methodology, facility design and optimisation, engineering substantiation, site characterisation and evolution, long-term safety assessments and numerical modelling to support and enhance regulatory reviews of ESCs based on fully informed understanding of best practice in this field.
3. Expert consultancy advice, with a view to working in collaboration with the Environment Agency’s Nuclear Regulation Group.
4. Established relationships with other operators and regulators of solid radioactive disposal facilities which could assist and inform the composition of the expert advisory panel.

In addition, an essential consideration for the Environment Agency will be in the independence of the advice it receives avoiding conflicts of interest. We acknowledge that this will be a challenge given the relatively small market for these services.

Potential duration and costs

The Environment Agency anticipate the services will be required from early 2026.

The LLWR 2026 ESC will be received on 1st May 2026. The duration of the review will depend on the nature of the submission, but it is anticipated that external technical support for ESC review may be required over a period of 2 to 4 years.

It is anticipated that support to our GDF work will be required during both the current pre-application stage and the application review. The Environment Agency anticipate receiving a first permit application for investigation boreholes in 2028, but this date is uncertain. Depending on the nature of the application, application review work may last for 1-2 years from the submission date.

Based on current information, it is anticipated that ongoing support will be required from this contract for a number of years.

A potential value of around £900k over the contract period is currently estimated.

**Market Engagement Exercise**

This engagement exercise aims to help the Environment Agency better understand the interest, capability and capacity of the supply market to provide these services in a future invitation to tender. To inform its decision making and assess the most appropriate contracting format to use, the Environment Agency is inviting interested suppliers to respond to a short questionnaire.

This engagement does not constitute a formal notice to tender and there is no guarantee the Environment Agency will proceed with an external tendering exercise to create a framework or other form of contract. By replying to the questionnaire, you are not committing to any future tender submission, and replies will not form part of any subsequent tender process or evaluation.

In addition to assessing the technical capacity of the market. the engagement exercise is intended to help to inform the following:

* How Contractors may deliver the services, for example in-house, via sub-contractors, via a consortium or other operational structure.
* The potential structure of the contract – whether contractors consider a framework agreement with a lot structure or capability matrix structure or similar would be beneficial to break services down into discreet areas of specialism or work types, as opposed to a single lot arrangement that would require contractors to be able to provide all the services in the specification to be eligible, or other type of agreement, for example a Dynamic Market? When considering your reply, please note that as a Public Contracting Authority, the Environment Agency is required to comply with the Procurement Act 2023 and Procurement Regulations 2024.
* Suitable pricing mechanism – it is anticipated that a schedule of day rates will be the most suitable pricing mechanism to apply. It would be helpful if you could provide an indication of the roles that you would expect to be required to undertake the services, for example Director, Senior Consultant, Technical Specialist, Graduate Consultant, Project Manager etc, to include in a pricing schedule.
* Estimation of costs of the services – whether current Environment Agency costs estimates are realistic to inform internal planning, business case applications and procurement strategy development. It would be helpful if you could provide an indicative high level cost estimate in Table 5b of the questionnaire. The table sets out the Environment Agency’s initial expectation of the services required but please add any additional service areas you consider may be necessary to provide the support required.
* The level of conflict of interest that currently exists or may develop within the market and how this may be managed.

If you wish to participate in this market engagement exercise, you are invited to complete a short Technical Support for the Regulatory Assessment of Solid Radioactive Waste Disposal Facilities Market Engagement Questionnaire. The questionnaire can be obtained by emailing [radwaste.enquiry@environment-agency.gov.uk](mailto:radwaste.enquiry@environment-agency.gov.uk). Please use the subject title “**Technical Support Market Engagement Questionnaire**” in your request. **Completed questionnaires should be returned to the same email address no later than 16:00 on 4th July 2025**.

**A virtual supplier event will be held via Microsoft Teams on 10th June 2025 11:00-13:00** **BST.** This will provide interested organisations an opportunity to learn about the Environment Agency and its requirements for the technical support contract as well as the chance to clarify any matters to assist in completing the questionnaire. Requests to attend the supplier event should be emailed to [radwaste.enquiry@environment-agency.gov.uk](mailto:radwaste.enquiry@environment-agency.gov.uk) with the subject title **“Technical Support Market Engagement Supplier Event”,** and include details of the attendee’s email address(es) invitations should be issued to. To keep the event manageable, suppliers are requested to keep attendees to a maximum of four participants.

Any future tender exercise will be conducted through the Defra eSourcing portal. If your organisation is not already registered you can create an account at <https://defra-family.force.com/s/Welcome>.

1. Our requirements for near-surface radioactive waste disposal facilities are set out in our [NS-GRA, published in February 2019](https://www.gov.uk/government/publications/near-surface-disposal-facilities-on-land-for-solid-radioactive-wastes). This document is currently under review. [↑](#footnote-ref-2)
2. The purpose of the panel would be for the Environment Agency to be able to receive high level advice on its activities from individuals with significant experience relevant to the regulation of solid waste disposal in other countries. [↑](#footnote-ref-3)