

RESPONSE TO DEPARTMENT OF ENERGY & CLIMATE CHANGE CONSULTATION

Review of the Siting Process for a Geological Disposal Facility

Summary

Geological disposal, preceded by safe and secure interim storage, is UK Government policy for the long-term management of higher activity radioactive waste. No site suitable for a facility for the geological disposal of higher activity radioactive waste has yet been identified in the UK although, over several decades, much effort has been put into finding such a site.

We welcome this consultation because the siting process lies at the heart of achieving progress in delivery of geological disposal. In particular, we welcome the proposals for:

- **A more prominent role for the independent regulators in any revised siting process.** In any revised siting process, we will work closely with communities and others to help build their knowledge and understanding of our roles and regulatory processes. We will explain how we will work jointly with the Office for Nuclear Regulation to ensure long-term protection of people and the environment. By engaging with communities, we will also be able to gain a better understanding of people's concerns and help to build confidence in our independent regulation.
- **Developing a National Policy Statement for geological disposal.** The proposal recognises that a geological disposal facility is a Nationally Significant Infrastructure Project, which requires spatial planning decisions to be made at an appropriate level.
- **Clarification of the Baseline Inventory for geological disposal.** We consider it preferable, at the outset, to identify all the potential wastes for geological disposal so there is transparency, in particular, for potential host communities over the wastes which will be disposed of in the facility.

1. INTRODUCTION

- 1.1 The Environment Agency, working together with the Office for Nuclear Regulation (ONR), will be responsible for regulating any future geological disposal facility for radioactive waste in England. We will work jointly with the ONR to ensure that any geological disposal facility meets the required high standards for protection of people and the environment, both now and in the future. We will not grant an environmental permit for a geological disposal facility unless we are satisfied that it meets our regulatory requirements.

- 1.2 We are also responsible for the regulation of radioactive waste disposal from existing nuclear and non-nuclear sites and from the planned new nuclear power stations in England.
- 1.3 As well as our regulatory role, we are a statutory consultee for Development Consent Orders and on all National Policy Statements and associated Assessments of Sustainability. We are also a statutory consultation body for all plans and programmes that require a Strategic Environmental Assessment (SEA) and developments requiring an Environmental Impact Assessment (EIA).
- 1.4 We do not have a regulatory role in the decision-making process for identifying and selecting a suitable site for a geological disposal facility. To inform the process, we will provide advice and comment on environmental matters within our remit. Our regulatory role will start when a developer decides to apply for an environmental permit for intrusive investigation work at a potential site (or sites), for example, drilling boreholes to investigate the geology.
- 1.5 We and the ONR have a joint programme of technical and organisational scrutiny of the Nuclear Decommissioning Authority's (NDA's) Radioactive Waste Management Directorate (RWMD). Through this programme, we want to ensure that the RWMD's scientific and technical programme provides a sound basis for implementing geological disposal. We also want to ensure that the RWMD develops into an organisation capable of applying for the environmental permits and the nuclear site licence that it may need in the future. We publish an annual report that summarises the work we have carried out under our joint scrutiny programme.

2. ENVIRONMENT AGENCY RESPONSE TO CONSULTATION QUESTIONS

Question 1: Do you agree that a test of public support should be taken before the representative authority loses the Right of Withdrawal? If so, what do you think would be the most appropriate means of testing public support, and when should it take place? If you do not agree with the need for such a test, please explain why.

- 2.1 No comment – this is outside our remit as an environmental regulator.

Question 2 – Do you agree with the proposed amendments to decision making within the MRWS siting process? If not, how would you modify the proposed phased approach, or, alternatively, what different approach would you propose? Please explain your reasoning.

- 2.2 The design of the siting process itself is outside our remit and we have no comments on the proposed changes.
- 2.3 We would welcome any changes to the siting process that will help to make progress towards developing a geological disposal facility. We consider that current arrangements for managing higher activity radioactive waste, which rely on storage at the surface, are not sustainable in the long term. Some radioactive wastes would require safe and secure storage for many thousands of years, which would place a continuing burden on future generations to maintain and replace storage facilities.

- 2.4 We note that, for the proposed siting process, the indicative timescale leading to a possible start of construction might be around 20 years. While this is a long time, it is consistent with experience in more advanced geological disposal programmes in Sweden, Finland and France. Overseas experience has shown that an important element in defining the timescale for, and achieving success in, a siting programme is to move forward only at a rate that is acceptable to a volunteer community. Another important element is the need to take sufficient time to ensure that the host rock is sufficiently well characterised, from surface-based and underground investigations, to enable development of a safety case, covering environmental and operational aspects, that meets regulatory requirements.
- 2.5 We will work jointly with the ONR to ensure that any geological disposal facility meets the required high standards for protection of people and the environment, both now and in the future. We will not do this in isolation: we will continue to work closely with representative local authorities and communities to help build and maintain confidence and trust in our regulatory process and decision-making.
- 2.6 The proposed changes to the design of the siting process are unlikely to affect our environmental permitting process, which would begin when a developer decides to start intrusive investigation work such as drilling boreholes to investigate the geology at a potential site (or sites). Under the Environmental Permitting (England and Wales) Regulations 2010, an environmental permit will be required for these site investigations.
- 2.7 The proposed changes to the design of the siting process will not significantly affect our on-going joint programme with the ONR of technical and organisational scrutiny of RWMD's work on geological disposal, which is subject to periodic review and revision. At some stage, we may need to revise priorities within the programme to reflect the technical work being undertaken as part of the siting process, for example, developing the Baseline Inventory.

Question 3 – Do you agree with this approach to revising roles in the siting process set out in the White Paper? If not, what alternative approach would you propose and why?

- 2.8 We agree with the need for clarification of roles within the siting process. We suggest that this should include broader roles for the NDA and RWMD, site operators and the regulators in explaining the current arrangements for managing higher activity radioactive waste. This should help increase understanding of the context and need for geological disposal.
- 2.9 We agree with the proposal that the RWMD should take a leading role in a future siting process. We would expect the RWMD to promote its role in implementing geological disposal as part of a wider strategy for the management of higher activity radioactive waste. This should include explaining the nature of higher activity radioactive waste management, why geological disposal is needed and the context in which disposal of higher activity radioactive wastes would take place. We believe the NDA and the RWMD should explain why current arrangements for managing higher activity radioactive wastes, which rely on surface storage, are not sustainable over the very long time (many thousands of years) that some of these wastes remain

hazardous. We also believe the NDA and the RWMD should do more to increase public awareness and understanding of their respective scientific and technical programmes on higher activity radioactive waste management and geological disposal and be open to challenge and independent technical review of their work.

- 2.10 We welcome the proposal that the independent regulators (we and the ONR) should have a more prominent role in engaging with communities, local authorities and the public before our regulatory role begins. We will work closely with communities and others to help build their awareness and understanding of our role and regulatory process. We will explain our regulation of higher activity radioactive waste management, including our regulatory process for geological disposal, and how this will help secure a safe approach to managing higher activity radioactive waste in the long term. We will also explain how we will work jointly with the ONR to ensure long-term protection of people and the environment. Through working with communities and others, we will be able to gain a better understanding of people's concerns.
- 2.11 In taking a more prominent role, while we support geological disposal in general as the preferred means of managing higher activity radioactive waste, we will ensure that we do not compromise our role as an independent regulator. We will not become party to the decision-making process for identifying and selecting a potential site (or sites) for a geological disposal facility. We will maintain our independence to make decisions within our regulatory remit that reflect our statutory responsibilities for protecting people and the environment.
- 2.12 We consider that a more visible role, building on our existing widespread contacts with local communities, could help build trust and confidence in our regulatory process and delivery of our statutory role as independent environmental regulator. We also consider that it will help support the national dialogue needed to ensure that plans for geological disposal are supported not only by any individual host communities, but more generally by other communities who may be affected by or benefit from any such development.
- 2.13 We believe our joint programme with the ONR of technical and organisational scrutiny of the RWMD's work will be of value during any revised siting process. We will publish our technical views on the RWMD's continuing work which should help to build knowledge and awareness among communities, local authorities and others involved in the siting process.

Question 4 – Do you agree with this proposed approach to assessing geological suitability as part of the MRWS siting process? If not, what alternative approach would you propose and why?

- 2.14 Assessing the geological suitability of potential volunteer sites is outside our remit and we have no comments on the proposed approach. As stated in the consultation document (paragraph 2.81), '... it is not for regulators to make judgements on the suitability of potential volunteer areas at points of the process that would prejudice later regulatory permissions ...'
- 2.15 We agree with the proposal for providing geological information earlier in the siting process. This should help increase understanding of the feasibility of

developing a geological disposal facility in a particular area so that communities can make informed decisions on whether to participate in the process.

Question 5 – Do you agree with this proposed approach to planning for the geological disposal facility? If not, what alternative approach would you propose and why?

- 2.16 We welcome the proposal for a National Policy Statement for geological disposal of higher activity wastes. The proposal recognises that a geological disposal facility is a Nationally Significant Infrastructure Project, which requires spatial planning issues to be addressed at an appropriate level.
- 2.17 As a statutory consultation body, we would be consulted on the proposed National Policy Statement for a geological disposal facility and the associated Appraisal of Sustainability. We would also be consulted at various subsequent stages in the siting process where requirements for SEA and EIA apply. Under the proposal to bring intrusive investigation work within the definition of a Nationally Significant Infrastructure Project, we would be consulted at the planning stage for such work, on the Development Consent Order and the associated EIA.
- 2.18 Whatever planning approach is adopted for geological disposal, we suggest that consideration should be given to applying this to other important elements of radioactive waste management infrastructure including, for example, dedicated national facilities for the safe and secure interim storage of higher activity radioactive waste. We consider such facilities as essential national infrastructure for ensuring progress in decommissioning and clean-up of legacy nuclear sites. A consistent approach within the planning regime could facilitate an integrated national approach to providing these essential facilities.

Question 6 – Do you agree with this clarification of the inventory for geological disposal – and how this will be communicated with the volunteer host community? If not, what alternative approach would you propose and why?

- 2.19 We welcome the proposed clarification of the Baseline Inventory for geological disposal. We consider it preferable, at the outset, to identify all the potential wastes for geological disposal. The proposed Baseline Inventory will provide a better indication of the total quantity and type of wastes that might be sent for disposal. This should provide a clearer basis for discussions with communities interested in hosting a geological disposal facility.
- 2.20 Should changes to the inventory arise, these can be put into context against the Baseline Inventory and the reasons for the changes can be discussed with communities, so that it is clear what type and amount of radioactive wastes a community is being asked to accept.
- 2.21 The consultation document notes the need for disposability assessments for spent fuel from new reactor designs. We will continue to work closely with the ONR in reviewing the RWMD's disposability assessments of waste producers' proposals for waste conditioning and packaging including spent fuel from new build.

2.22 Our reviews consider disposability assessments for spent nuclear fuel from possible new build nuclear reactors and also for higher activity wastes arising from past and current operations. The aim of our reviews is to make sure that wastes packaged for disposal in any future geological disposal facility meet our joint regulatory requirements for environmental protection, nuclear safety, security, safeguards, and safe transport.

Question 7 – Do you endorse the proposed approach on community benefits associated with a GDF? If not, what alternative approach would you propose and why?

2.23 Community benefits are outside our remit as an environmental regulator and we have no comments.

Question 8 – Do you agree with the proposed approach to addressing potential socio-economic and environmental effects that might come from hosting a GDF? If not, what alternative approach would you propose and why?

2.24 We support the proposed approach to addressing potential socio-economic and environmental effects. We welcome the proposals to address these elements earlier in the process to inform decisions on site suitability. We suggest that the high level and more detailed assessments described in paragraph 4.34 are carried out in line with the requirements of the SEA Directive. Paragraph 4.35 refers to EIAs to support ‘planning applications’ for boreholes and underground operations. Reference to ‘planning applications’ for these activities seems inconsistent with the proposal to treat geological disposal as a Nationally Significant Infrastructure Project. We suggest that the text should refer to ‘development consent applications’.

Question 9 – Do you have any other comments?

2.25 We consider that a revised siting process should improve the chances of success in securing long-term community support and acceptance for hosting a geological disposal facility. Progress towards geological disposal should also help achieve wider improvements in radioactive waste management provided a coordinated approach is adopted by developing a national strategy for managing higher activity wastes. We consider that discussions on developing a geological disposal facility should be set clearly in the context of an understanding of the current arrangements for managing higher activity radioactive wastes at sites in communities across England and elsewhere in the UK.

Further information

Further information or background to this response can be obtained from:

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