

Our Ref: ORG13-A2614
CSM/JG/JC/FL
Your Ref: -

Dounreay Radioactive Waste Substitution Consultation
Scottish Government
The Rural and Environment Directorate
Environmental Quality Division
Area 1-H North
Victoria Quay
Leith
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10 March 2011

Dear Sirs

Dounreay Radioactive Waste Substitution Consultation

Thank you for providing the Scottish Environment Protection Agency (SEPA) with the opportunity to comment on the Scottish Government Consultation on a Policy for Substituting Overseas Radioactive Wastes at Dounreay.

We believe that SEPA has an important role to protect the environmental condition of civil nuclear legacy sites in Scotland and, in meeting this role, make sure these sites are adequately restored for beneficial use by future generations.

SEPA is of the view that there is a positive and significant benefit if the policy is implemented as it would enable Dounreay Site Restoration Limited (DSRL) and the Nuclear Decommissioning Authority (NDA) to make progress on plans to decommission and clean up the Dounreay site and achieve an interim end state at the earliest opportunity.

SEPA notes that this policy would extend the scope of the previous Government policy set out in Cm 2919¹ as related to substituting either intermediate or low level radioactive waste with high level radioactive waste from the Sellafield site, formerly operated by BNFL.

SEPA supports the intended scope and outcomes of the proposed policy change; noting that it will allow NDA and DSRL to enter into negotiations with overseas customers to fulfil overseas contract commitments that require reprocessing wastes to be returned to their country of origin.

¹ Review of Radioactive Waste Policy, Cm 2919 July 1995



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SEPA notes the policy will allow:

- (i) substitution of either Prototype Fast Reactor (PFR) or cemented Materials Test Reactor (MTR) raffinate wastes with a radiologically equivalent amount of vitrified high level waste currently stored at the Sellafield site, and
- (ii) substitution of PFR with a radiologically equivalent amount of cemented MTR, both wastes currently stored at Dounreay.

Overall, SEPA agrees with UK Government that the policy should seek to ensure that environmental neutrality is maintained, primarily on the basis of radiological equivalence; the methodology used to determine radiological equivalence should be developed, jointly, by NDA, Sellafield Ltd and DSRL.

As noted in the consultation, SEPA agrees that the methodology for substituting MTR/PFR wastes at Dounreay with vitrified wastes from reprocessing at Sellafield should be agreed, formally and jointly, by the Environment Agency and SEPA, and by SEPA in the case of substituting PFR with MTR at Dounreay. Also, both environmental regulators will have to be satisfied that the methodology is fully incorporated in the arrangements between the NDA and its overseas customers. That said, SEPA would ask what role UK Government would expect when concluding these arrangements for returning wastes overseas.

The Environment Agency will be the Competent Authority in relation to sending shipments of vitrified waste from Sellafield overseas. Thus, the EA will lead on ensuring the necessary arrangements, procedures and application forms are in place and have been completed, both in the UK and in the destination country which receives vitrified waste. In all cases, the arrangements will have to comply with the [Transfrontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008](#) SI No. 3087 (TFS) which came into force in December 2008. For MTR being sent overseas from Dounreay as a substitute for PFR, SEPA will be the Competent Authority for the TFS, but will also require the shipments to be authorised under the Radioactive Substances Act 1993.

Paragraph 4.3.6. The wording of this paragraph says "...Government expects broad environmental neutrality...", but the same paragraph finishes saying that Government expects radiological equivalence to be a "requirement" of NDA's contracts with overseas customers. SEPA understands that Government would wish us to enforce this new regulatory duty. Therefore, it would help SEPA if the requirement to ensure radiological equivalence in NDA's contracts with overseas customers was made legally enforceable by means of a Direction or similar mandate from the Scottish Government to SEPA.

The Executive Summary and elsewhere in the policy states that MTR and PFR waste from Dounreay could be substituted with radioactive waste from another facility within the NDA estate. However, paragraph 4.3.4 states that substitution of MTR and PFR is permitted only for vitrified high level radioactive waste arising from reprocessing at Sellafield. We assume there is no presumption for the policy to extend to cover substituting wastes other than vitrified waste from the Sellafield site.

Paragraph 1.2.1. It would have been good to explain the basis why UK Government considers the policy to fall outside the scope of the SEA Regulations especially as the proposed policy change could impact on the NDA strategy which is subject to SEA.

SEPA agrees with the comments made in the policy that it is not appropriate to construct a plant at Dounreay to vitrify PFR wastes given that cementation is a proven technology at Dounreay. This means that it would not be appropriate, or economically viable, to construct a facility to vitrify the small volumes of PFR wastes from overseas customers. Also, SEPA agrees that this would incur capital and operating costs and further costs associated with the decommissioning and management of any radioactive and non-radioactive waste arisings.

Section 1.4.7 states "In the event that sending vitrified radioactive waste from Sellafield was not an option but the NDA's customers were asking for vitrified waste..." We suggest the policy should make it clear how Government would resolve the issue where customers ask for vitrified waste to be sent from Sellafield, but this option may not be practical or there are other reasons why this cannot happen.

As a public body committed to openness and transparency, SEPA feels it is appropriate that this response be placed on the public record.

If you require further clarification on any comments raised in this response, please contact Jim Cochrane, Principal Policy Officer, Radioactive Substances Unit, at the address shown above.

Yours faithfully



Calum MacDonald
Director of Operations