

# Exotic Fuels – Dounreay Fast Reactor (DFR) Breeder

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## **NDA Response to Stakeholder Comments on Credible & Preferred Options**

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**November 2011**

## Stakeholder Comments in response to DFR Credible & Preferred Options Paper

In July 2011, NDA published a joint Credible and Preferred Options paper on the management of the DFR breeder material at Dounreay. 12 responses were received, and these comments have been reviewed and collated in the table below, along with our response as NDA.

Comment	Organisation / Individual	NDA Response
<b>Stakeholder Engagement</b>		
Lack of consultation with the communities likely to be affected by the transport route	Highlands Council; DSG	Communities along the transport route will be contacted when the route has been finalised to inform them of the intention to apply for the relevant regulatory permissions. This process is being undertaken by our subsidiary company Direct Rail Services (DRS).
Lack of further consultation / engagement in general	Allerdale Borough Council; SCCORS; NFLA	This was an engagement activity, rather than a formal consultation. The overall concept of the programme was consulted upon through the Draft Strategy in 2010, and more detailed milestones were consulted upon through the Draft Business Plan 2011-14. This Credible & Preferred Options paper is a method of stakeholder engagement, to inform on the options and preferred option that is under consideration.
Lack of sensitivity to the MRWS process in West Cumbria	Allerdale Borough Council; Copeland Borough Council	The MRWS process is concerned with the final disposal of higher level wastes in a geological disposal facility. This proposal is concerned with the transportation, reprocessing and interim storage of nuclear material.
No explanation why the two SMS stages have been merged – future documents should contain explanation	Allerdale Borough Council	The Credible Options and Preferred Options papers (Gates A & B in the SMS process) have been merged and the engagement timescales compressed due to the window of opportunity to reprocess the material in the Magnox Operating Plan (MOP). By publishing the two papers together, we can ensure that stakeholders are given the fullest amount of information and the longest time possible to respond to the NDA. NDA considered it to be disingenuous to conduct a credible option study that led to a clear and compelling preferred option.
Confused choreography and	Allerdale	The NDA is sometimes restricted in what it can

language in the paper; paper poorly written; lack of detail makes a conclusion difficult; Cat A vs Cat 1	Borough Council; DSG; Individual #1; Copeland Borough Council	say in public documents due to security issues surrounding the material within the document. Public documents need to comply with safety, security and environmental regulations. We have learnt lessons on the structure and format of our papers, and are providing more technical information in subsequent studies published.
NDA has chosen to use 'material' rather than 'waste' to provide a convincing argument for this decision to be put forward. This also means that Scottish Govt HAW Policy is met, as the material is not considered a waste.	Shetland Islands Council; SCCORS; NFLA	The definition as material rather than waste or fuel comes from international standards and definitions. NDA are not seeking to use this definition in a disingenuous way. The material was located in the reactor core and is to be reprocessed. It is similar in design and content to Magnox fuel. To be clear, the breeder material is not a waste.
DFR is not the complete fuel mix at Sellafield – why was more detail not given about the entire mix? Why was DFR separated out?	DSG; NFLA	The DFR Breeder material is reprocessible using current UK infrastructure. No other spent fuel or nuclear material at Dounreay is reprocessible. The window of opportunity available to put the material through the Magnox reprocessing plant is narrow, and in order to meet the opportunity, it was necessary to accelerate the work and keep it as a separate study. The credible options for the rest of spent fuel and nuclear materials stored at Dounreay will be published in the next few months.
More detail is required on critical timing of programme	DSG	This information was subsequently supplied to the Dounreay Stakeholder Group
NDA is putting forward proposals as part of its campaign to maintain the pretence that plutonium is useful, in order to maintain it as a zero-value asset	NFLA	Decisions on the future use of UK-owned stocks of plutonium are driven by the best technical solution for the management of the material. The context implied by this comment is incorrect. The decision on the future use of plutonium is for the UK Government, not NDA. Following a DECC consultation in the Spring, an announcement is expected shortly.

<b>Socio-Economic</b>		
Economic rationale for decision implies less investment in Dounreay site	Highlands Council	This is part of the decommissioning strategy for Dounreay with the aim of cleaning up the entire site.
NDA should consider investing savings into key projects e.g. Thurso Bypass	Highlands Council; Caithness Partnership	The NDA works closely with partner organisations through the Caithness & North Sutherland Regeneration Partnership to continue to invest in socio economic projects

		on the CNSRP programme. .
No recognition of the impacts on local communities in West Cumbria	Allerdale Borough Council; Copeland Borough Council	The impact of the preferred option will be insignificant in relation to the total throughput of material at the Magnox Reprocessing Plant. There will be a minor socio-economic benefit from increased employment by extending the Magnox Reprocessing programme by a few months.
No evidence that NDA has considered using the savings to support local communities in West Cumbria – community benefits package	Allerdale Borough Council; Copeland Borough Council	The Credible and Preferred Options Study is not the appropriate place for such considerations. Other forums will be utilised (where appropriate) to discuss such issues.
Lost jobs at Dounreay will not be reflected in job gains at Sellafield; Loss of jobs at Dounreay is detrimental to the community	CORE; Caithness Partnership	The primary aim of the decommissioning programme at Dounreay is to clean up the site. The NDA's socio-economic programme is in place to help mitigate resultant job losses.

<b>General Comments</b>		
Potential benefit of managing MoD irradiated fuels and NDA exotic fuels together not covered in paper.	Allerdale Borough Council; Copeland Borough Council	The MoD fuel management strategy is a matter for MoD, as they own the fuel. The other NDA exotics fuels will be covered by other credible options studies to be published in the near future.
If DFR material is moved to Sellafield and not reprocessed, what are the overall costs?	Allerdale Borough Council; Shetland Islands Council	The material will be subsumed into the Magnox Operating Programme. If circumstances materialise in which the MOP cannot complete the reprocessing of the material within its inventory then contingency plans currently under development will be activated.
The similarity in cost estimates and the risks and uncertainties involved do not make a clear or compelling case	CORE; Shetland Islands Council; DSG; Copeland Borough Council	The clear and compelling case comes principally from security, technology maturity and processing plant availability drivers. You are correct to say that economics is not the differentiating factor, although the low technology maturity for the waste option indicates the cost of waste processing at Dounreay will be much higher than currently anticipated..
Insufficient weighting is given to environmental and security impacts of the rail transportations	CORE; Shetland Islands Council;	Direct Rail Services (DRS) will take into consideration environmental and security impacts of any potential movements, and the safest, most secure and least environmentally-

	NFLA	detrimental method will be implemented. Security and environmental impacts are given the highest consideration along with other key metrics.
Insufficient thought has been given to the additional burden on Magnox reprocessing schedules	CORE; Shetland Islands Council	The timing of the DFR breeder movements has been calculated in line with the Magnox Operating Programme (MOP) and availability at Sellafield. This is a driving factor behind the schedule of the programme and the additional burden on the reprocessing programme is very small. All rail transportation will be carried out in accordance with regulatory requirements.
The additional reprocessing will inevitably result in an increase in radioactive discharge from Sellafield; NDA should consider all methods of reducing discharge from Sellafield	CORE; SCCORS; NFLA	Discharges from Sellafield are closely monitored and tightly regulated. Any increase due to the reprocessing of this material would be insignificant and most likely immeasurable.
The overall hazard profile of Sellafield will be increased	CORE	As above.
Report should be withdrawn and revised following closure of SMP	Shetland Islands Council; NFLA	The decision to close the Sellafield MOX Plant (SMP) has no implication on the DFR Breeder programme.
DECC Plutonium Consultation – Govt decision could change NDA operational plans, and undermine the preferred option	Shetland Islands Council; DSG; NFLA	Government decisions on plutonium will have no impact on this proposal.
Preferred option seems to be financially driven; decision has already been made	Shetland Islands Council; NFLA; Individual #1	The NDA is charged with implementing a programme of decommissioning safely, securely and as efficiently as possible.
Movement of material and reduction in hazard at Dounreay is supported	Caithness Partnership; SCCORS	Noted.
The planning for possible transport incidents for local authorities should be adequately considered	SCCORS	The transport of nuclear materials is tightly regulated and this includes planning for potential incidents involving a wide range of stakeholders including emergency services and local authorities.
Serious concern over whether the breeder material in the reactor can be managed in line with published timescales	NFLA; Copeland Borough Council	If the decision to proceed is taken the breeder material will be subsumed into the overall Magnox Operating Programme and managed within its overall timescales.
Why has the position changed	Individual #2	The material is not waste and the NDA has the

from 'near source' management in Scotland? Is Scotland trying to get rid of the waste at the expense of Sellafield?		strategic responsibility to manage the decommissioning and waste management of material it owns in as efficient a manner as possible.
Send it to Sellafield for reuse – its shouldn't be wasted.	Individual #3	Noted.

**Comments received from:**

- Allerdale Borough Council
- Caithness Partnership
- Copeland Borough Council
- Cumbrians Opposed to a Radioactive Environment (CORE)
- Dounreay Stakeholder Group (DSG)
- Highlands Council
- Individual #1
- Nuclear Free Local Authorities (NFLA)
- Individual #2
- Scottish Councils Committee on Radioactive Substances (SCCORS)
- Shetland Islands Council
- Individual #3