

**Consultation on the Management of Overseas Origin Nuclear Fuels held in the UK by DECC.**

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**Summary and Recommendation:**

On the 03<sup>rd</sup> March the Department of Energy & Climate Change (DECC) launched a consultation into the 'Management of overseas origin fuels held in the UK'. The Consultation seeks views from interested parties and it closes on the 28<sup>th</sup> May 2014.

**Recommendation:** Members are requested to review the consultation and provide any comments to be included in the feedback to be issued by Copeland Borough Council and review the proposed consultation response.

**1. Background**

- 1.1** The NDA inherited a number of contracts for the provision of the management of spent fuel and nuclear materials. This used to be a profitable export for the UK, however the international nuclear landscape has changed.
- 1.2** In June 2012 the NDA's oxide fuels Preferred Option paper set out the available options for the future of THORP. As a result of which it concluded that the option to complete the reprocessing contracts and close THORP in 2018 was the most feasible option. Copeland Borough Councils response to the THORP options paper is attached at Appendix one.

**2. Overview of the current situation:**

- 2.1** THORP has completed 95% of its overseas order book with about 300 tonnes of overseas origin fuels remaining to be managed before THORP is expected to close in 2018.
- 2.2** The NDA expects to be able to reprocess the great majority of the remaining 300 tonnes of overseas origin nuclear fuel as original intended. However there is approximately 30 tonnes of this fuel of which it is considered that reprocessing is not the most feasible option. This is due to the complex nature of the materials which would make it challenging to reprocess in THORP.
- 2.3** The 30 tonnes of residual fuel also includes 2 tonnes of overseas –origin fuel currently held at Dounreay which will be transferred to Sellafield for future

management in line with the NDA's published strategy for Exotics fuels. Refer to Copeland Borough Councils response to the exotics consultation at Appendix 2.

### **3. The proposed solution:**

**3.1** Subject to government approval the NDA will seek to either:

- Process in THORP and allocate customers products and wastes in-line with contractual commitments.
- Place the fuels into interim storage pending disposal – where necessary, take ownership where necessary and close out the contracts through virtual reprocessing.

**3.2** To ensure that the UK does not become a net importer of nuclear waste as a consequence of this the NDA will enact "**Virtual reprocessing**". With virtual reprocessing the NDA proposes that a radiological equivalent amount of waste will be allocated and then returned to the customer as if the fuel has been reprocessed.

**3.3** Additionally, an equivalent amount of nuclear materials will be allocated to the customer and stored pending agreement on their future management.

**3.4** In a small number of cases the amounts of allocated wastes are so small that it will be neither practical nor cost-effective to return waste to the customer.

**3.5** There are also a small number of cases where the contracts for the reprocessing service do not provide for waste returns, primarily those relating to processing of un-irradiated fuel. In these circumstances the NDA would take title to them and manage them alongside their existing fuels.

**3.6** It also states that in a small number of cases commercial settlements may be reached without the return of products or waste.

### **4. Issues for Consideration:**

**4.1** On initially reviewing the proposal the main issues identified for concern appear to be:

- 'Virtual reprocessing' is an administrative process therefore no physical processing takes place. The Council appreciates that this allows the NDA to fulfill their contractual obligations at a lower cost to the taxpayer; however the overall saving to the taxpayer is at a cost to the local community who is disadvantaged economically through the closure of physical reprocessing and the increased legacy of an additional, approximately, 30 tonnes of un-reprocessed materials to manage, including the additional 2 tonnes currently held at Dounreay in Scotland (refer to CBC exotic waste consultation response appendix 2).
- The dis-benefit to the local community and the additional burden is not addressed in this consultation.
- Adding small quantities to the overall legacy at Sellafield adds to the burden of the local area, it is an example of the 'salami slice' approach to the overall nuclear legacy that the NDA has to manage.

- Interim storage can be for many decades potential a 100 years plus, which in real time is a long time. It has been acknowledge that the facilities at Sellafield are not fit for purpose and new storage facilities need to be provided. The recent PAC report was damning regarding the progress on managing the risk reduction at Sellafield. This proposal appears to add to the legacy without addressing the need to improve the existing facilities. The money saved on not reprocessing the remaining nuclear fuels should be redirected to the need to upgrade 'interim' storage facilities on site.
- Further information is required on the implications of storage of the proposed materials on the Sellafield site regarding its potential impact on other programmes and clarity on the ability of the site to sustain the additional materials and manage it alongside existing waste streams.
- The proposal includes interim storage pending long term disposal. Copeland Borough Council was involved in the previous search for a suitable Geological Disposal Facility (GDF) and the issue regarding the inventory and placing un-reprocessed materials in such a facility were highly contentious and would need to be explored fully with the potential host community.
- Further clarity regarding the potential economic savings through implementation of this strategy and how those savings will be reflected in the level of socio-economic benefits to the host area, of the un-reprocessed materials, is considered necessary before a full understanding of the balance of economic consideration can be given.

## **5. Way Forward**

- 5.1** Councillors are asked to consider the proposed draft issues identified above and the draft response attached at Appendix 4 and to provide feedback, in particular to consider if the issues identified highlight the main concerns and if there are any outstanding issues that need to be incorporated into the response?
- 5.2** All Cllrs responses and key issues identified will then be coordinated and the proposed response redrafted accordingly.
- 5.3** The consultation closes on the 28<sup>th</sup> May, there is not another SNEB scheduled until the 5<sup>th</sup> June therefore it is proposed that the Leader of the Council sign off and agree the final draft.
- 5.4** Councillors are asked to approve the proposed mechanism for responding to the consultation.

## **Appendix one: CBC response to closure of THORP**

### **Consultation on Oxide Fuels Credible options paper**

Thank you for the opportunity to respond to your consultation on the Oxide Fuels Credible Options paper. This has been discussed at the Council's Strategic Nuclear and Energy Board on 1<sup>st</sup> Feb and the Council has the following comments.

1. Reprocessing spent fuel provides economic benefits to the wider community through job creation. The proposal to stop reprocessing and to store the remainder of the fuel does not have the same economic advantages as reprocessing. In the assessment that led to the decision to end reprocessing was the possibility of reprocessing MOD waste considered?
2. The proposed storage of civilian and MOD spent fuel at Sellafield places a burden on the local community and provides minimal benefits to the local community. If the spent fuel is stored on site then there needs to be Community Benefit Contributions made to the local community to offset the burden of storing the fuel.
3. An accurate breakdown of the volume of civilian and MOD fuel that will not be reprocessed and a detailed plan for the proposed on site storage of non-processed materials is necessary to assess the full implications.
4. THORP is a key employer within Sellafield and its closure will result in a significant number of job losses. This will need to be managed in an organised way, with discussions with Copeland Borough Council to ensure the minimum impact on both the employees and the wider community.
5. The closure of THORP will result in the loss of a wide set of skills and experienced staff. A process to maintain knowledge or mechanisms need to be put in place to ensure that there is not a 'brain drain' from the area and to ensure the retention and redeployment of skilled workers.
6. Within the consultation document the NDA state that it is not financially viable to extend the life of THORP to retain the skilled workforce and that investing in research and development would be a more economical and credible option of retaining the existing skill set. A proposal for investment in R&D and to plug the gap left by the closure of THORP should be considered in parallel with this paper.
7. The preferred option is only viable assuming that to complete the reprocessing contracts there is no need to replace the Highly Active Storage Tanks (HASTs). In the event that replaced HASTs are required what is the implications on the preferred strategy? If these result in a lower level of fuel being reprocessed and a higher level of storage then this needs to be detailed as part of the consultation process.

8. The proposed consultation operates on the best case scenario and has not covered the possibility of further technical problems with THORP or the Evaporator D project and how this may impact on the levels of fuel which could be reprocessed.

Copelands preferred option for spent fuel would be the continuation of reprocessing if this is not viable through THORP then through other means. The wider implications have not been taken into consideration, the GDF process is in its infancy and the inventory has not been agreed so it cannot be assumed that the local community would be accepting of unprocessed fuel being disposed of in a GDF, therefore alternative plans need to be given due consideration..

I look forward to receiving your comments on the above points in due course.

## Appendix Two: Exotics Fuel Consultation response – Feb 2013

### **Exotic Fuels and Nuclear Materials – Dounreay Credible Options Feb 2012**

Copeland Borough Council has considered the above consultation and has the following comments:

- The NDA state that the purpose of the paper is to engage with stakeholders before any decision is made in March/ April 2012 – Copeland would suggest that this consultation as a form of ‘engagement’ is too limited and generic to qualify as meaningful engagement and would recommend that further consultation is required with the affected local communities before any decision can be made. It is unclear from the document when, how and what form this consultation will take, this needs to be clearly defined with the prospective community benefit contributions firmly established.
- The consultation states that the option of transport to Sellafield for management needs to be discussed with regulators and stakeholders before any approved strategic decision can be made. Copeland would stress the need for early meaningful engagement and would suggest that the NDA adopt the open transparent approach used by the MRWS framework rather than the previous less positive consultation exercises such as the DFR Breeder consultation in November 2011.
- Within the document it states that “Modern facilities are either under construction or planned at Sellafield” – An explanation of which ‘facilities’ this refers to would be useful and help to clarify how the NDA consider that Sellafield can foreseeably handle the fuel i.e. Are these facilities for reprocessing the fuels or storage?
- In the value framework analysis it is stated that no new stores are needed (beyond that already planned). However, the types of material permitted to be stored are conditional and further investigation is required with the Local Planning Authority to establish the merits of this proposal. Before the NDA engage with Planning Authorities to pursue a preferred strategy it is considered that more recognition needs to be given to the burden that the Copeland community carries now and will continue to carry as these materials with the associated potential safety security and environmental issues are left for the local community to manage.
- Under socio-economics the value framework states that there is no meaningful difference between the options. The displacement of the burden of hosting these materials from one community to another has a positive impact on the community they are removed from and a negative impact on the community they are moved too. It is considered that this

statement shows a lack of understanding of the fears and possible resistance within potential host communities.

- Increase in Sellafield business is stated as a socio-economic benefit, however it does not articulate how the fuel will be reprocessed therefore it must be assumed that it will be held within storage and therefore have very limited benefit to the wider community. The benefits to the community would have to be provided through some form of community benefit contribution which could be partially funded through the saving achieved through reduced security arrangements at Dounreay.
- The Options Analysis states that “Sellafield already has similar materials so there would be no meaningful change in the Sellafield site hazard profile.”

There is no consideration of the socio-economic impact on the local community as the radioactive material inventory at Sellafield continues to rise. This might give the potential appearance of undermining the on-going MRWS process for siting a geological repository. The local community remains highly sensitive to these issues. The consultation document needs to present a more strategic analysis of the importance and national value to the UK of Sellafield's stewardship role hosting nuclear materials. This strategic analysis should then consider a reasonable benefits package.

We look forward to your response in due course.

**Appendix three: Consultation on the management of overseas origin nuclear fuels held in the UK.**



**Appendix four: Draft Consultation response.**