

Nuclear Free Local Authorities **RADIOACTIVE WASTE POLICY**

Briefing No.52 – EDF waste transfer policy in Scotland

Prepared for NFLA member authorities, August 2014

Model Response to Consultation by SEPA on an Application by EDF Energy Nuclear Generation Limited for Changes to the Authorisation covering the disposal of Radioactive Wastes from Hunterston B and Torness Power Stations

1. Introduction to Briefing

This edition of the NFLA Radioactive Waste Policy Briefing provides NFLA Scotland members with a model response to a SEPA consultation on proposed changes to waste transfer authorisations at Hunterston and Torness nuclear power stations in Scotland. It has been developed for the NFLA Scotland Forum by the NFLA Scotland Policy Advisor. It will be adapted for the NFLA's formal response to the application. Individual NFLA Scotland members are also welcome to respond to the consultation endorsing the points made by the NFLA below.

EDF Energy has applied to the Scottish Environment Protection Agency (SEPA) for amendments to its Authorisations to dispose of radioactive waste from Hunterston B and Torness.

SEPA has launched a public consultation on these applications. Responses to the consultation should be sent in writing to the address below no later than **3 October 2014**.

The Registrar, Scottish Environment Protection Agency, Angus Smith Building, Parklands Avenue, Eurocentral, Holytown, North Lanarkshire, ML1 4WQ.

Or by email:

registry.angusmith@sepa.org.uk

2. Detail on EDF Energy's Application

The application does not request any changes to the existing authorised gaseous or liquid effluent discharge limits, but relates to the transfer of waste to other authorised sites including transfer between Hunterston B and Torness.

- (i) EDF Energy wants to be able to transfer Low Level Waste (LLW) to any authorised site rather than just locations specified by SEPA. The locations currently specified appear to be restricted to the Low Level Waste Repository at Drigg near Sellafield, and for certain types of combustible waste, an incinerator in Southampton. The likely new locations are not specified, but will probably include the other incinerators and metal treatment facilities mentioned below.
- (ii) At the moment only LLW can be transferred off-site. EDF Energy wants to be able to transfer certain types of Intermediate-Level Waste (ILW) to a list of incinerators (none of which are in Scotland – although the Company also asks for permission to transfer waste to other UK incinerators); metal treatment facilities, including

Nykoping in Sweden (where contaminated metal from Rosyth has been sent) Krefeld in Germany, Lillyhall in Cumbria, and a facility in Tennessee.

- (iii) Radioactive waste transfers are currently subject to annual activity limits set for individual radionuclides or groups of radionuclides. EDF Energy wants these restriction removed. It also wants any restrictions on physical or chemical characteristics removed. This would allow EDF Energy to send oils, classified as ILW, for incineration, and for wet wastes such as sludges and resins to be transferred off-site for treatment and disposal.
- (iv) EDF Energy also wants permission to transfer wastes from other EDF power station sites to Torness and Hunterston for interim storage; loading of containers and onward transfer. **Crucially the application says “there will be no processing or treatment of waste” that has been transferred to Torness or Hunterston from another site.**

Enabling the two stations to “*reduce the volume of waste on-site*” is put forward as a benefit which would arise from a positive decision on this application, along with “*more effective application of the waste management hierarchy*”

Other benefits are seen as “*allowing access to novel radioactive waste treatment services*” such as metal decontamination and recycling. A lower number of larger sized consignments would reduce carbon emissions.

As more radioactive waste disposal services become available for low level waste, approving this application will remove the need for a new application each time a new route becomes available. This is likely to mean more incineration and more ‘recycling’.

3. The NFLA View to this Application

The NFLA has difficulty with the application of the waste hierarchy to nuclear waste management, preferring instead to rely on a clear set of environmental principles. The use of the waste hierarchy tends to be used to promote “recycling” or other forms of waste management, such as incineration, which can result in dilution and dispersal of radioactive substances, rather than its concentration and containment.

Environmental Principles:

The NFLA Steering Committee agreed a set of clear environmental principles which should be used for the management of nuclear waste in October 2004 at its Annual General Meeting in Hull.

These are:

- **The idea that radioactive waste can be "disposed" of be rejected in favour of radioactive waste management;**
- **Any process or activity that involves new or additional radioactive discharges into the environment be opposed, as this is potentially harmful to the human and natural environment;**
- **The policy of 'dilute and disperse' as a form of radioactive waste management (i.e. discharges into the sea or atmosphere) be rejected in favour of a policy of 'concentrate and contain' (i.e. store safely on-site);**
- **The principle of waste minimisation be supported;**
- **The unnecessary transport of radioactive and other hazardous wastes be opposed;**

- **Wastes should ideally be managed on-site where produced (or as near as possible to the site) in a facility that allows monitoring and retrieval of the wastes.**

This application, if approved, seems likely to lead to further incineration and recycling of LLW. NFLA does not support this, believing it to be a breach of the “*concentrate and contain rather than dilute and disperse principle*”.

However, NFLA is particularly concerned about the proposal to allow the transfer of ILW for the purposes of incineration and recycling. This could obviously mean much higher levels of radioactivity discharged into the environment as a result. And even more controversially, and running counter to current Scottish Government policy, are plans to transfer ILW between sites.

EDF Energy wants the flexibility to pack ILW from Torness and Hunterston into the same storage container to save money. This is likely to mean that waste containers will be increasingly moved between the west and east coasts, increasing the risk of accidents. Whether the containers final storage site is Torness or Hunterston this will run counter to the Scottish Government policy of storing waste near where it was produced – the proximity principal.

And because waste from Hunterston and Torness will be mixed up in the same container, it will be difficult for EDF Energy to meet its commitment to residents near Hunterston to only store waste in the Hunterston ILW store which was generated on that site.

Neither EDF Energy nor the government’s safety watchdog, the Office for Nuclear Regulation (ONR), would say how often nuclear waste would be driven between Hunterston and Torness. (1)

5. Scottish Policy on Low Level waste (LLW)

In May 2012 SEPA released a new policy for Low Level Waste. (2) Previously SEPA required authorisations issued to nuclear sites to specify the intended recipient and the site of destination for any radioactive waste removed from a nuclear site. The new position allowed LLW to be transferred to any person that is lawfully entitled to accept and to treat and or dispose of LLW providing that the selected disposal option is the “best practicable means” for disposing of that waste.

The new policy, which was limited to the disposal of LLW, no longer imposed additional constraints on the radioactive content or volume of waste. Instead this would be dealt with in the authorisation for the facility receiving the waste.

The SEPA Policy followed on from the publication of new UK Policy, agreed with the Scottish Executive, and other devolved administrations, which was published in March 2007. (3)

This document introduced the idea of the waste management hierarchy for low level waste. Although, at the top of the hierarchy, the idea of waste avoidance and waste reduction were widely supported, the idea of waste minimisation including by recycling, and incineration was more controversial.

In 2006 in response to a consultation on drafts of this new UK policy the NFLA Secretariat expressed concern that using some options for LLW management could result in increased dilution and dispersal adding to the burden of radiological risk that is carried by

society. (4) However, NFLA did support many of the “principles” which underpinned the new policy particularly the proximity principle. The finalised document in 2007 said:

“The requirement to consider proximity and transport has not previously been included in Government policy on radioactive waste management. Since the previous statement of policy in the area in 1995, both have assumed greater prominence in the general management of waste, and they should ... be explicitly considered in an options assessment process.” (page 23)

6. Scottish Government Policy on Higher Activity Waste (HAW)

The Scottish Government Policy on HAW is that it should be managed in near-surface facilities, which “*should be located as near to the site where the waste is produced as possible.*” The Policy requires long-term management options to take account of the Proximity Principle. (para 2.01.06)

This means that long-term radioactive waste management facilities should be as near to those sites as practicable so that the need to transport the waste over long distances is minimal. (para 2.04.04) (3)

SEPA says:

Although the HAW Policy has a presumption that HAW arising in Scotland will be stored or disposed of in a facility near the site where it arose and near to the surface, it does not preclude HAW leaving the site where it arose for treatment, where that treatment will result in the waste being in a form which will facilitate its future management and where that treatment represents BPM. (Consultation Document para 6.2.2)

As highlighted above **the application says “there will be no processing or treatment of waste” that has been transferred to Torness or Hunterston from another site. So the near site, near surface policy should still be applied.**

The Scottish Government’s response to the consultation notes that the application is in line with current SEPA Policy on LLW, but makes no comment on ILW, which given that EDF are making proposals affecting over 1,000m³ of ILW for Hunterston seems remiss to say the least.

7. The Application in Detail

The following tables, summarised from the applications, give an idea of the amount of material covered by these new applications compared with waste disposed of currently. The consultation documents give no idea of the activity of the additional waste to be transferred or disposed of should this application be successful. The only information given indicates that, particularly in the case of Hunterston, the volumes are quite high.

a) Torness

Waste transfer route	GBq/yr	Volume (m ³)
Waste transferred to metals treatment facility	0.09	27.58
Waste sent for incineration	1.03	40
Waste sent for compaction	1.79	16.74
Waste sent to LLWR	1.98	56.46

(Drigg)		
Additional waste transfers applied for:		Total up to 2023 – excluding any life extension.
LLW		86.2
ILW		55.0

b) Hunterston

Waste transfer route	GBq/yr	Volume (m³)
Waste sent for incineration	5,700	23
Waste sent to LLWR (Drigg)	48,000	54
Additional waste transfers applied for:		Total up to 2023 – excluding any life extension.
ILW		1173.25

Nor is it possible to tell from the information given what the proposed management strategy is for each category of waste mentioned. Nor is it also possible to match up the waste categories given in the application with the waste categories given in the NDA Radioactive Waste Inventory (2013)

For example, the waste streams that cannot be disposed of under existing arrangements at Torness are shown in the left hand column in the table below. Indication of possible management strategy in the second column and any possible categories of waste in the Radioactive Waste Inventory are given in the third column.

Waste stream	Possible management strategy	Categories of waste
Generic ILW Oils	No indication of plans for this waste apart from mention that it's been placed in a variety of containers at some stations	No indication of which waste in the radioactive waste inventory this covers.
AGR LLW IX Resin	Characterisation required before deciding which are ILW and which LLW. Once processed LLW will be packaged and sent to LLWR at Drigg. But no mention of management plan for ILW.	There are two types of resin mentioned in the inventory, but these are both ILW
AGR LLW Sludges	Characterisation required before deciding which is LLW and which ILW – but no mention of the management plan.	The inventory includes Active Effluent Filtration Sludge (LLW); Pond Water Filtration Sludge (ILW) and oily sludge (LLW)
AGR ILW Catalyst	Likely to be processed and packaged. But then?	Waste Stream 4C01
AGR ILW IX Resin	As LLW IX Resin. No mention of management for ILW resin.	Pond Water Filtration Resin and Active Effluent Filtration resin.

The upshot of this is that NFLA cannot tell from the application which wastes and what activities and volumes it is intended to send for incineration, which for recycling and which wastes may be transferred between Hunterston and Torness or vice versa. EDF Energy wants the flexibility to do whatever it wants. This is unacceptable. It should be asked to go back and redraft its application.

8. Conclusions

NFLA does not favour waste transfer whether for incineration, so-called 'recycling' or transfers between Torness and Hunterston. Rather it favours on-site storage and the application of the proximity principle.

NFLA is particularly concerned about proposals to transport intermediate level waste by road between Torness and Hunterston, unnecessarily increasing the risk of accident. There will be no processing or treatment of waste transferred between the two sites, hence this would run counter to Scottish Government policy.

From the consultation documents provided it is not possible for NFLA to tell which wastes of what activity and volume will be sent for incineration, which will be sent for recycling and which will be transported between Torness and Hunterston. To the NFLA, this is unacceptable.

9. References

- (1) Sunday Herald 6th July 2014 <http://www.robedwards.com/2014/07/nightmare-of-nuclear-waste-shipments-across-scotland.html>
- (2) SEPA Policy on the Regulation of Disposal of Radioactive Low Level Waste from Nuclear Sites, SEPA, May 2012
- (3) Policy for the Long Term Management of Solid Low Level Radioactive Waste in the United Kingdom, DEFRA, Scottish Executive etc, March 2007
<http://www.scotland.gov.uk/Resource/Doc/30701/0048172.pdf>
- (4) Briefing on the DEFRA and Devolved Administrations *Public Consultation on Policy for the Long Term Management of Solid Low Level Radioactive Waste in the United Kingdom*, NFLA April 2006
<http://www.nuclearpolicy.info/docs/radwaste/RWB14.pdf>
- (5) Scottish Higher Activity Radioactive Waste Policy 2011, Scottish Government January 2011.
<http://www.scotland.gov.uk/Resource/Doc/338695/0111419.pdf>