Radioactive Substances Act 1993

Decision Document

Application by EDF Energy Nuclear Generation Ltd for variation under Section 17 to dispose of Radioactive Waste from Hunterston B and Torness Power Stations.

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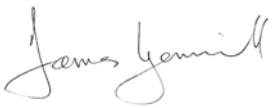
Approved	Jim Gemmill Unit Manager		17 May 2016

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SUMMARY

EDF Energy Nuclear Generation Limited (EDF) applied for a variation to its existing authorisations for the disposal of radioactive waste from the Nuclear Licensed Sites at Hunterston B and Torness. The applications for variation under Section 17 of the Radioactive Substances Act 1993, as amended (RSA93) were received by SEPA in December 2013 and November 2013 respectively. The following table illustrates what EDF applied for and SEPA's decision in relation to that request:

Changes Applied for by EDF	SEPA Decision
Flexibility in disposal of LLW: 1. to any waste permitted person within UK; and 2. to any person outside the UK in accordance with TFS.	1. Authorised. 2. Authorised.
Flexibility in disposal of ILW: 1. to any waste permitted person within the UK; and 2. to any person outside the UK in accordance with TFS.	1. Not authorised. Only specified waste (oily waste for both, desiccant for Torness) authorised to specified locations. 2. Authorised.
Removal of limits on physical and chemical characteristics and radionuclide/group of radionuclides on disposals of: 1. LLW; and 2. ILW	1. Authorised for LLW. 2. ILW restricted to specified wastes only (oily waste and desiccant).
Ability to receive waste for the purpose of bulking up and onward disposal.	Authorised disposal from each of the Scottish sites of LLW received from the other Scottish site.
Change name appearing on front sheet of authorisation	Not applicable.

The applications and draft conditions were subject to statutory consultation with the Office for Nuclear Regulation (ONR) and the Food Standards Agency (FSA). The Scottish Government was consulted under administrative arrangements agreed between Scottish Government and SEPA. In July 2014, SEPA undertook public and discretionary consultations on the applications.

In addition to the requested changes by EDF, SEPA took the opportunity to update the conditions of the existing authorisation in line with SEPA's current template of conditions for administrative purposes.

SEPA intends to grant Notices of Variation to EDF Energy Nuclear Generation Limited formerly known as British Energy Generation Limited. The notices vary the authorisations for the disposal of radioactive waste from Hunterston B and Torness power stations. There was no change to any of the authorised limits for radioactive aqueous or gaseous disposals from the station to the local environment, and these limits were not reviewed as part of this variation.

1 INTRODUCTION

1.1 Purpose of the Document

The purpose of this document is to record the Scottish Environment Protection Agency's (SEPA's) considerations and rationale which underpins SEPA's decision in respect of the application from EDF Energy Nuclear Generation Limited (referred to throughout this document as EDF) to vary its existing authorisations under the Radioactive Substances Act 1993, as amended (RSA93) for disposal of radioactive waste from Hunterston B and Torness power stations.

The existing authorisations are very similar and the applications received requested the same changes. These changes do not impact on the local environment of either station. As a consequence of this and with the aim of minimising the burden on consultees, SEPA decided to carry out joint consultations on the applications. For consistency, SEPA has decided to follow this joint approach through to the decision document.

1.2 Application details

In late 2013, EDF made applications to SEPA to vary the current authorisations for the disposal of radioactive waste from Hunterston B Power Station, certificate reference RSA/A/0070022, and Torness Power Station, certificate reference RSA/A/0070116, under Section 17 of RSA93. The applications sought to allow more effective application of the waste management hierarchy including the use of new radioactive waste management facilities that have become available since the authorisation was originally issued. In detail, the requested changes are set out below.

1.2.1 Low Level Waste (LLW) Disposals

- To enable LLW to be transferred off-site to any person authorised to receive it for treatment and disposal regardless of radionuclide composition, specific activity, total activity or physical or chemical characteristics of the waste.

1.2.2 Intermediate Level Wastes (ILW) Disposals

- To enable ILW to be transferred off-site to any person authorised to receive it for treatment and disposal regardless of radionuclide composition, specific activity, total activity or physical or chemical characteristics of the waste.

1.2.3 Acceptance of Radioactive Wastes from other EDF Sites

- To enable Hunterston B and Torness Power Stations to receive radioactive waste from other EDF power stations for the following purposes: interim storage, loading of containers and onward transfer.

1.2.4 Company name change

- Defining the authorisation holder as "EDF Energy Nuclear Generation Limited".

The applications were provided in the consultation package which accompanied the discretionary and public consultations phase and are available on the SEPA website or by request.

1.3 SEPA's Remit and Duties

SEPA is a non-departmental body of the Scottish Government and is the principal regulator responsible for environmental protection in Scotland. Its purpose, as set out in the Regulatory Reform (Scotland) Act 2014, is to ensure that Scotland's environment is protected and improving, including ensuring that natural resources are managed in a sustainable way:

SEPA was established by the Environment Act 1995 (EA95) which set out its main statutory functions, duties and powers. SEPA became operational on 1 April 1996.

SEPA's main statutory functions include:

- the regulation of activities or processes that may pollute water, air or land;
- the regulation of waste storage, transport, treatment and disposal;
- the regulation of the keeping, use and disposal of radioactive substances;
- running Scotland's flood warning systems;
- Participating as a statutory consultee to the planning system.

SEPA's other principal responsibilities include:

- Monitoring, analysing and reporting on the state of Scotland's environment;
- Helping implement the Zero Waste Strategy;
- Controlling, in conjunction with the Health and Safety Executive, the risk of major accidents at industrial sites;
- Operating the Scottish component of the Radioactive Incident Monitoring Network (RIMNET);
- Providing advice to the Scottish Government in a variety of policy areas.

1.4 The Radioactive Substances Act 1993

The control over radioactive material and radioactive wastes in Scotland is exercised via RSA93. Section 13 of RSA93 makes it an offence to dispose of any radioactive waste, or permit it to be disposed of, unless it is in accordance with an authorisation granted under that Section, or it falls into one of the categories of radioactive waste specifically exempted from the requirements of this Section. SEPA is the body charged with granting authorisations under Section 13 in Scotland.

SEPA grants an authorisation subject to such limitations and conditions as it sees fit. This authorisation is described in a certificate. The limitations and conditions are imposed to ensure that where the generation of radioactive waste cannot be avoided,

it is disposed of in a safe and controlled manner and at appropriate times in accordance with Government policy.

Section 17 of RSA93 allows SEPA to vary or revoke an authorisation at any time, whether or not an application has been received from the Authorisation Holder. Where an authorisation is already subject to limitations and conditions, SEPA may revoke, vary or attach new limitations and conditions.

1.5 Applicant Details and Site Locations

The current authorisations were issued to British Energy Generation Limited (BEGL) in 2007. BEGL was bought over by the French-owned company Electricite de France SA and changed its name to EDF Energy Nuclear Generation Limited (EDF) on 1 July 2011. The 2007 authorisation remained valid as this was only a company name change and there was no other change to the registered company details. The Registered Company number remained as 03076445. The company owns and operates the Hunterston B Power Station in West Kilbride and Torness Power Station in Dunbar, as well as six other nuclear power stations in England.

Hunterston B Power Station was commissioned in 1976 and generates electricity from two Advanced Gas-cooled Reactors (AGRs). The station is located on the West Coast of Scotland on the Hunterston Peninsula which forms part of the Ayrshire coastal plain. It is currently planned to operate until 2023.

Torness Power Station has two AGR's and started generating electricity in 1988. The station is located on the East Coast of Scotland near to Dunbar on the Skateraw Peninsula which forms part of the East Lothian coastal plain. It is currently planned to operate until 2030.

1.6 Details of Current Authorisation

EDF is currently authorised for the disposal of radioactive waste in solid, liquid and gaseous forms from both Hunterston B and Torness power stations. The authorisations have associated limitations and conditions which are contained in the certificates with certificate references RSA/A/0070022 and RSA/A/0070116 respectively.

These Authorisations have each been varied twice since they were issued. These variations were in 2011 and 2012. The first variation made some minor amendments to the Authorisation and to available routes for solid waste disposal. The second variation added an additional gaseous discharge outlet to allow the testing of valves for the purposes of nuclear safety. Copies of the current authorisation and the variations (VN01 and VN02) were provided in the consultation package which accompanied the discretionary and public consultations phase and are available on the SEPA website or by request.

2 APPLICATION PROCEDURE

Persons wishing to dispose of radioactive waste in or from Scotland must hold an authorisation granted under RSA93 by SEPA. Any proposed changes to this authorisation will be determined in accordance with SEPA's own procedures. In addition, RSA93 requires SEPA to specifically consult with named organisations on applications relating to nuclear licensed sites. SEPA's determination and consultation processes are set out below.

2.1 Determination Process

SEPA determines applications in accordance with its internal procedures, which take into account the procedural and consultation requirements of RSA93, other relevant legislation and Government policy. In arriving at its decision on whether or not to grant an application (and if granted, the limitations and conditions imposed), SEPA gives consideration to the following:

- Details contained in the application;
- Responses from consultees and members of the public (see Appendices 1 and 2);
- Further information that SEPA may have sought from the applicant; (see Appendices 3 and 4);
- Findings of SEPA inspections carried out at the applicant's premises;
- Relevant legislation and government policy;
- Data relating to disposals of radioactivity from the site;
- Environmental impact of radioactive waste disposals.

2.2 Consultation Process

RSA93 requires consultation on any proposed changes to an authorisation to dispose of radioactive waste from a nuclear licensed site with the Health and Safety Executive (HSE) and the Foods Standards Agency (FSA). RSA93 requires consultation before the decision is made to vary the authorisation. FSA must also be consulted on the terms of any proposed variation.

From the date the applications were received and through the various stages of determining the applications there have been changes to the statutory consultees. In April 2014 the part of HSE concerned with nuclear safety became a statutory public corporation called the Office for Nuclear Regulation (ONR) and in April 2015 Food Standards Scotland (FSS) was established under the Food (Scotland) Act 2015. FSS took on the functions previously carried out by the FSA in Scotland. Consequently, SEPA consulted with ONR and FSS as appropriate.

In addition to these statutory consultations, SEPA's procedure for determining variations also includes steps to consult Scottish Government before and after the

determination of the application. This allows Scottish Ministers the opportunity to exercise their powers under RSA93. These powers are the ability to:

- give direction to SEPA regarding the application (Section 23);
- call in the application to be determined by Scottish Ministers (Section 24); and
- restrict knowledge of the application on National Security grounds (Section 25).

SEPA's practice for variations to authorisations for nuclear licensed sites where a significant change has been applied for also requires wider consultation with relevant public bodies and the general public, although there is no requirement in the legislation to do so.

EDF made individual applications to amend the authorisations for Hunterston B and Torness Power Stations at the same time. SEPA decided to carry out a joint consultation covering both stations for the following reasons:

- the current Authorisations and associated variations are very similar;
- the requested changes are the same; and
- combining the consultations reduces the burden on consultees who require to be consulted regarding both authorisations.

The order that these consultations are carried out along with a brief explanation is set out below.

Step 1 (1st statutory consultation)

SEPA carried out this step of the consultation process with ONR, FSS (then FSA) and Scottish Government in March 2014. The responses from ONR, FSS (then FSA) and Scottish Government were included in the consultation package that accompanied the discretionary and public consultation. No objections were raised in the initial consultation phase.

Step 2 (discretionary and public consultation)

In selecting the relevant local authorities to be consulted, SEPA followed the process that it would for an application for a new authorisation.

The public bodies consulted were selected by SEPA and are listed in the table below for each site:

Hunterston B Power Station	Torness Power Station
Scottish Natural Heritage	Scottish Natural Heritage
Environment Agency	Environment Agency
Scottish Water	Scottish Water
Public Health England	Public Health England

Committee on Medical Aspects of Radiation in the Environment (COMARE)	Committee on Medical Aspects of Radiation in the Environment (COMARE)
North Ayrshire Council	City of Edinburgh Council, East Lothian Council, Mid Lothian Council, Borders Council
Ayrshire and Arran Health Board	East Lothian Health Board
Hunterston Site Stakeholder Group	Torness Technical Local Liaison Committee

It is also SEPA practice to invite comment from the wider public. To this end the consultation was advertised in:

Hunterston B Power Station	**Torness Power Station**
The Edinburgh Gazette	The Edinburgh Gazette
The Herald	The Scotsman
The Largs and Millport Weekly News	The East Lothian Courier

Copies of the consultation package were placed on SEPA's website. In addition, copies were also placed in SEPA Edinburgh, Ayr and Eurocentral offices to facilitate members of the public wishing to view the documents at these locations.

The wider consultation with relevant public bodies and the general public was carried out between July and October 2014. Nine out of fourteen discretionary consultees responded to the consultation and there were a further sixteen responses received from the public. The key issues raised during the consultation have been addressed in the body of this document. The responses to this consultation can be found in Appendices 1 and 2.

Step 3 (applicant consultation)

Once SEPA determined the application and had decided to issue a Notice of Variation, the draft changes were sent to EDF for comment. This was done on 18 December 2015. EDF provided comments on the proposed changes on 14 January 2016 (see Appendix 5).

Step 4 (2nd statutory consultation)

The fourth stage is consistent with the requirements of Section 17 2A of RSA93. SEPA is required to consult again with the FSS on the terms and conditions of any variation it proposes to grant. A second consultation is also carried out at this time with ONR under formal working arrangements.

FSS and ONR were consulted in 3 February 2016 on the proposed terms of the variation. The responses from FSS and ONR can be found in Appendix 6. No objections were raised.

Step 5 (final consultation with Scottish Ministers)

Finally, consultation is carried out with the Scottish Ministers. This was undertaken on 1 March 2016. Scottish Ministers were not minded to exercise their powers under Sections 23 or 24 of RSA93 with regard to this decision (see Appendix 6).

It should be noted that Scottish Ministers reserve the right to call in or give direction at any time, including after a variation has been issued.

3 APPLICATION DETERMINATION AND CONSIDERATIONS

SEPA regulates the management and disposal of radioactive waste under RSA93. The primary purpose of this legislation is to provide for the protection of public health against harm from discharges of radioactive waste[1,2]. In the consultation document, the principal policy documents and the framework within which SEPA operates were highlighted. How SEPA takes account of these factors in relation to what EDF has applied for is summarised in this section of the decision document.

3.1 Disposal of LLW by Transfer

EDF applied to dispose of LLW to any person authorised/permitted to receive it, both within and outside of the UK, regardless of radionuclide composition, specific/total activity or physical/chemical characteristics of the waste.

In 2012 SEPA published its new policy[3] for the regulation of the disposal of LLW from nuclear licensed sites to a third party. This policy reflected the changes which had occurred in radioactive waste management and government policy. The position moved away from the previous position used in 2007, when the original authorisation was granted, such that it was no longer appropriate to specify the person to whom the waste could go to within the authorisation. The new position is summarised as follows:

"*SEPA will authorise the disposal of LLW from nuclear sites to any person that is lawfully entitled to accept and to treat and/or dispose of that waste providing that the selected disposal option is the "best practicable means" for disposing of that waste. Therefore, it will be necessary for the disposer to evaluate the options for the treatment and disposal of their wastes to ensure that "best practicable means" are being applied to dispose of that waste. We will check compliance with this requirement through routine inspection, in the same way that we check compliance with all of the other authorisation requirements. We will also require prior notification before new transfer routes are utilised*."

This approach requires the Authorisation Holder to consider all practicable options for the disposal of LLW, and when evaluating the options, to consider a range of attributes to ensure that for the disposal of any type of LLW this represents Best Practicable Means (BPM) for the disposal of that waste.

These attributes are set down in the authorisation and include (where relevant) a consideration of:

- Economic costs;
- Social benefits;
- Radiological exposures to the public;

[1] Radioactive Substances Bill /H.L.7, Notes on Clauses House of Commons, 4 March 1960
[2] Hansard; HC Deb 08 March 1960 vol 619 cc321-76
[3] SEPA Policy on the Regulation of Disposal of Radioactive Low Level Waste from Nuclear Sites. 2012. www.sepa.org.uk

- Occupational radiological exposures;
- Radiological impact on the environment;
- Conventional safety;
- Consistency with the waste hierarchy;
- Impact on the non-radioactive properties of radioactive wastes, including climate change emissions;
- The proximity principle; and
- Applicable government policy.

This approach is intended to aid the implementation of the Government's UK strategy for the management of solid low level radioactive waste from the nuclear industry, which identified the need for flexibility in the management of LLW, including the adoption of the waste management hierarchy and the optimisation of the remaining capacity in the Low Level Waste Repository. It means that Authorisation Holders will be able to more easily use the supply chain without having to go through the administrative and time consuming process of having to apply for variation to the authorisation for each new site to be added. This will reduce time spent by both industry and SEPA in amendments to the authorisation and will allow SEPA more time to focus on compliance issues. The Environment Agency has already made similar changes to its permits.

SEPA does not consider that it is appropriate or necessary to determine the impact of radioactive waste management on the receiving environment or community via the process of granting the RSA93 authorisation to the consignor of the waste. The impacts on the environment and the local community that are associated with the management of the waste at the recipient facility should be addressed through the pollution control and planning regimes applicable at that site. It is also SEPA's opinion that appropriate and meaningful consultation can only take place when the waste management facility applies for its environmental and planning permissions.

Similarly, SEPA believes that the environmental permit/authorisation of the receiving waste management facility is the most appropriate method of controlling quantities of radioactive waste that may be managed by that facility. The permit/authorisation for the receiving facility will set out the acceptable radiological, physical and chemical characteristics of the radioactive waste that it can receive, and the Authorisation Holder is required to comply with those requirements should he wish to make use of that facility. Since the waste acceptance criteria of different radioactive waste management facilities will be different, SEPA does not consider it necessary or appropriate to specify limits on radionuclides, volume/mass or physical/chemical descriptions of the waste disposed of by Hunterston B or Torness.

As set out in SEPA's 2012 policy[4] it is necessary for an Authorisation Holder to apply for this change in position. The EDF application requested the change to take advantage of the more flexible approach to LLW disposal.

3.1.1 Disposal of LLW within the UK

Following the 2012 approach, SEPA authorises the disposal of LLW in the UK to any holder of a suitable permit under the Environmental Permitting (England and Wales) Regulations 2010 or authorisation under RSA93 (both referred to as a "waste permitted person"), but only where the disposal represents BPM for the disposal of that waste.

A number of the consultation responses highlighted concern with this approach, sighting loss of transparency, particularly with regard to the loss of consultation on applications as Authorisation Holders will now be able to use different disposal facilities without the need for application. This has the most impact on local authorities that have disposal or treatment sites in their area. However, as discussed above, SEPA believes that the most appropriate and meaningful consultation in relation to sites that receive, treat and dispose of LLW is that which is carried out at the time that such facilities apply for planning permission and their environmental permit/authorisation for the treatment or disposal of radioactive waste.

A further concern raised in the consultation responses was a perceived loss of transparency regarding the radioactive waste which is being disposed of. However, this will not be the case as SEPA imposes authorisation conditions which require the Authorisation Holder to maintain up to date records stating the quantities of LLW disposed of and the location to which it is sent. This information is regularly reported to SEPA, and SEPA may make this information publicly available.

Therefore, SEPA does not believe that its approach to authorising LLW disposals from nuclear sites results in reduced transparency or a loss of regulatory control.

SEPA is satisfied that the requested approach to LLW disposals within the UK accords with current legislation and Government policy and is minded to grant this request.

3.1.2 Disposal of LLW outside of the UK

In addition to the RSA93 authorisation, the shipment of radioactive waste from, to or through Scotland is regulated by SEPA under the Transfrontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008, as amended (TFS), which transpose Council Directive 2006/117 EURATOM on the Supervision and Control of Shipments of Radioactive Waste and Spent Fuel.

Authorisations or consents for the shipment of radioactive waste are required by virtue of Section 3 of TFS whenever both the quantity (in becquerels-Bq) and concentration (becquerels per gram-Bq/g) of radioactivity in the shipment exceed the levels set down in Council Directive 96/29/EURATOM, and the shipment does not fall under one of the excluded categories as detailed in the Directive.

[4] SEPA Policy of the Regulation of Disposal of Radioactive Low Level Waste from Nuclear Sites

Applications are submitted to SEPA using a standard form (Standard Document 2008/312/EURATOM). This document is also used for officially recording SEPA's decision on whether to grant authorisation or consent to a shipment and transmitting this decision to relevant parties.

SEPA's standard template of conditions for the disposal of radioactive waste from nuclear sites, which was included in the consultation package for the discretionary/public consultation, includes a schedule (Schedule 8) entitled "*Disposal of Radioactive Waste to a Person Outwith the United Kingdom*". The template allows such disposals providing:

- The disposal represents best practicable means for the disposal of that type of waste; and
- The disposal is for the purpose of treatment followed by the return of any radioactive waste arisings; and
- The disposal is made in accordance with an authorisation granted under TFS.

Relevant Government policy is taken into account as part of the granting of a TFS authorisation or consent. Consultation on the proposed shipment is also carried out with Scottish Ministers and ONR. SEPA will also consult with the relevant competent authorities for waste recipients outside of the United Kingdom on all future applications for authorisation under TFS.

The presumption of TFS is that any radioactive waste or residues remaining after treatment are returned to the consignor, unless the competent authority in the receiving country agrees that the waste or residue will not add materially to the inventory of that country's radioactive waste requiring disposal. Standard conditions within the authorisations require the treated waste and any residues to be returned to the Authorised Premises.

SEPA is minded to grant this request subject to the application of BPM and compliance with TFS requirements. Due to the requirements for SEPA to further consider and consult before granting TFS consent, SEPA does not consider it necessary to specify disposal routes for LLW within the variation.

3.1.3 Proposed Changes to the Authorisation Relating to LLW

SEPA's current template for nuclear authorisations, which was included in the consultation package for the discretionary/public consultation, already contains the conditions necessary to authorise the disposal of LLW to waste permitted persons in the UK (Schedule 7) and to those persons outside of the UK in accordance with an appropriate TFS authorisation (Schedule 8). The standard conditions from both these schedules have been included in the notice of variation.

Table 3.1, which describes in broad terms what type of radioactive waste can be disposed of by which route, has also been modified. The waste types of "Organic Liquid Combustible Waste", "Organic Liquid Waste" and "Solid Waste", which appear in the current authorisations have been removed and replaced with "Low Level Waste" to better reflect the description of the radioactive waste types being authorised for disposal and to align with SEPA's approach regarding the disposal of

LLW from nuclear licensed sites. The definition of Low Level Waste (LLW) has also been amended in the Interpretation of Terms so that it is no longer restricted to solid waste.

A copy of the Schedules to the Notice of Variation has been included as Appendices 7 and 8.

3.2 Disposal of ILW by Transfer

EDF applied for authorisation to dispose of ILW using the same approach as has been applied to LLW, for sites both within and outside of the UK, such that neither the waste type nor disposal facility will be named in the authorisation.

To date SEPA has not adopted this approach for ILW and historically has authorised disposals of specified ILW waste streams to specified disposal facilities. Furthermore, the disposal of ILW falls within Scotland's Higher Activity Radioactive Waste Policy 2011 (HAW Policy).

In January 2011, the Scottish Government published the HAW Policy to expand on its 2007 Policy Position Statement and to provide a framework for the long-term management of HAW in Scotland. The ILW referred to in this application falls within scope of the HAW policy. The HAW Policy allows consideration of waste treatment as a management option, to be used to comply with the waste management hierarchy. It does not prescribe types of treatment as it is clear that new technologies are being continually developed, and it allows such advances to be considered. It also recognises that some treatment options may not be available in Scotland, or even in other parts of the UK.

The HAW Policy allows consideration to be given to the transport of the HAW from where it arises for treatment elsewhere in the UK and to the export of the HAW overseas in line with international agreements and robust regulatory requirements. The export to other OECD (Organisation for Economic Co-operation and Development) and EU (European Union) countries may only be authorised by SEPA if it can be demonstrated as representing BPM. Furthermore, it should not be permitted except for where the treatment will result in the recovery of reusable materials or the treatment will make the subsequent storage or disposal of the HAW more manageable.

In all cases where treatment would add materially to the radioactive waste needing to be disposed of in the country of destination, including other parts of the UK, the presumption should be that the HAW will be returned to Scotland, to a timescale agreed by SEPA in Scotland and the appropriate regulators in the country of destination.

3.2.1 Disposal of ILW within the UK

SEPA considered that it was difficult to reconcile the HAW Policy with EDF's request for unspecified ILW disposal. Without specifying the destination for the ILW in question, it is not always clear whether the proposed treatment carried out at the receiving site accords with the permitted aims of treatment within the HAW Policy.

Consequently, SEPA believes that, in relation to the present applications, concurrence with the HAW Policy will be best achieved by continuing to specify both the ILW type and destination in the authorisation.

SEPA, as well as a number of respondents to the discretionary/public consultation, considered that the application provided insufficient detail to determine which ILW was intended for which site. As a result, SEPA wrote to EDF asking for further information regarding the types of ILW and the intended disposal routes in January 2015. This information was provided in March 2015. Both SEPA's letter and EDF's response are included as Appendices 3 and 4.

EDF identified preferred disposal routes for specified types of ILW. These are summarised in Table 3.2.1. EDF noted that they had not fully assessed all of these routes as representing BPM as well as satisfying the HAW Policy.

Table 3.2.1

Proposed Person to Whom ILW may be Transferred	**Proposed ILW Type**
Hythe Incinerator Operator	ILW oil
Lillyhall Metal Treatment Facility Operator	Metallic Solid ILW
Winfrith Waste Treatment Facility Operator	Metallic Solid ILW
	ILW sludges
	Ion exchange resin
	ILW Catalyst
	Solid drummed waste
	Desiccant
	ILW Oils

It was noted in the responses received during the discretionary/public consultation that there was significant concern that the application was designed to allow ILW, and not just LLW to be transferred to Hunterston B from other EDF stations. This is discussed further in Section 3.3 below.

SEPA notes that the on-site storage capacity of ILW oily waste is being approached, particularly at Torness. Furthermore, it is understood that the current Hythe incinerator operator, Tradebe Environmental Services Ltd, holds an environmental permit that allows the incineration of oily wastes in the ILW range. Both stations are already authorised to dispose of LLW to this facility, and SEPA is mindful of the potential fire loading issues arising from the storage of large volumes of oily waste. The HAW Policy accepts that incineration can be an appropriate form of treatment for ILW, and, that as a consequence, there may be no ILW to return to the stations. SEPA is therefore of the opinion that the disposal of ILW oily waste should be authorised for both sites.

The disposal of desiccant from Torness to the Winfrith Waste Management Facility is an existing route which has been used and for which EDF has an existing BPM assessment. Therefore, SEPA is content that this route remains available to Torness.

At present, SEPA does not consider that it is necessary to authorise the disposal of the other categories of ILW as many of the categories specified do not require disposal and/or the identified route has not been fully assessed and shown to be BPM. In the consultation with EDF on the proposed changes, EDF felt that the disposal of drummed ILW waste was required. EDF has suggested that typically 6 drums are produced annually as a result of small high activity items being placed in the standard 200 litre drums. This waste often contains radionuclides with a short half-life, and in some cases, this waste can be decay stored and eventually disposed of as LLW. However, this is not always the case. SEPA further discussed the issue with EDF and concluded that, before a route for this waste stream could be included, further assessment and consideration would be necessary. Consequently it was agreed that this route could not be authorised at the current time.

3.2.2 Disposal of ILW by Transfer outside of the UK

In addition to the waste management facilities within the UK, EDF also applied for the ability to dispose of a list of ILW to a list of facilities located outside of the UK. As discussed in Section 3.1.2 above the shipment of radioactive waste from, to or through Scotland is regulated by SEPA under TFS. This process requires consent under TFS, in addition to authorisation under RSA93. The TFS consent process provides SEPA with a further opportunity to decide if the disposal of ILW is in accordance with BPM and relevant Government policies, including the HAW Policy. There is also a requirement for consultation on the proposed shipment with Scottish Ministers, ONR and the relevant competent authorities in the country where the waste is destined. Due to this further opportunity to consider and consult, SEPA does not consider it necessary to specify disposal routes for ILW. Therefore, the standard conditions which apply to sending LLW outside the UK can apply equally to ILW.

SEPA is minded to grant this request subject to the application of BPM and compliance with TFS requirements. This is in line with the approach taken with authorisation holders at other nuclear sites in Scotland.

3.2.3 Proposed Changes to the Authorisation relating to ILW

In order to authorise the disposal of ILW to waste permitted persons in the UK, it was necessary to modify SEPA's standard template of conditions for nuclear authorisations which was included in the consultation package as part of the discretionary/public consultation. The pre-existing conditions in Schedule 7 ("Further Limitations and Conditions Relating to the Disposal of Radioactive Waste by Transfer to a Person within the United Kingdom") relate primarily to LLW.

For the ILW specifically, the standard condition (7.1.2 in the template) and table (Table 7.1) listing the types of ILW authorised to be disposed of to a particular waste management facility have been added. The new condition allows ILW to be disposed of by transfer only for the purposes of treatment, which has been defined in the Interpretation of Terms as including the recovery of reusable materials or making the subsequent storage or disposal of that ILW more manageable. ILW is defined in the Interpretation of Terms using the same definition for ILW as given in the Review of

Radioactive Waste Management Policy, Final Conclusions, Command Paper (Cm) 2919, 1995.

Table 3.1, which describes in broad terms what type of radioactive waste can be disposed of by which route, has also been modified. The waste type of "Intermediate Level Waste" has been added to the table with the corresponding disposal routes of "Transfer to a Person within the United Kingdom" as well as "Transfer to a Person outwith the United Kingdom".

A copy of the Schedules to the Notice of Variation has been included as Appendices 7 and 8.

3.3 Receipt of LLW from other EDF sites

EDF applied to enable Hunterston B and Torness Power Stations to receive radioactive waste from other EDF nuclear power stations for the purposes of interim storage, loading of containers and onward transfer. This request was made to facilitate more timely removal of LLW from the stations by combining it with similar wastes from other stations, thus giving more flexibility to make use of the waste management hierarchy. There may also be benefits of potentially reducing fire-loading and worker dose on the station.

The principle regulator for the accumulation of radioactive waste on the station is ONR. Nevertheless, SEPA has a responsibility to ensure that any storage of radioactive waste does not prejudice the waste's future disposability or that its storage does not generate unnecessary radioactive waste. Furthermore, under the Water Environment (Controlled Activities) (Scotland) Regulations 2011, SEPA has a duty to protect groundwater from hazardous substances, which includes radioactive substances.

SEPA consulted ONR on the request as part of the Stage 1 consultation. ONR did not object provided that there were no significant adverse operational impacts for the receiving site and that there was an acceptable safety justification in place covering all relevant aspects. EDF must comply with all requirements of ONR as well as those specified in the RSA93 authorisation.

The responses received during the discretionary/public consultation indicated that there was significant concern regarding the acceptance of radioactive waste by the stations. The principle concern appears to be that radioactive wastes, including ILW, from other EDF sites could be transferred, particularly to Hunterston B and, over potentially unlimited storage times and without adequate regulatory control, become combined with wastes arising on the station. This could surreptitiously result in the station becoming the national nuclear waste repository for EDF and perhaps the rest of the nuclear industry. It should be noted that neither Hunterston B nor Torness are authorised to dispose of ILW or LLW to Hunterston A.

The disposal of wastes received from other EDF stations is not permitted under the current authorisations due to conditions restricting disposals to radioactive wastes which were generated on the Station. SEPA considers that there is merit, for the reasons outlined above, in the intention to bulk up radioactive waste with that of other

EDF stations. However SEPA has also considered the concerns raised by the public and has decided that it should only allow the disposal of radioactive waste received from the other Scottish Station, that these disposals should be restricted to LLW and that the waste must be disposed within 6 months of it leaving the original station. SEPA is satisfied that these restrictions will address the main concerns raised by the public consultation.

During the determination, SEPA has noted challenges that exist in the current legislative framework regarding the regulation of the receipt of radioactive waste for the purposes of storage. ONR is the sole regulator for this type of activity. However, under the Regulatory Reform (Scotland) Act 2014, there are proposals to review this situation.

3.3.1 Proposed Changes to Authorisation relating to the Receipt of Waste

Under Section 13(1) of RSA93, SEPA can place conditions on the disposal of radioactive waste. Therefore, SEPA has included two mirror conditions in Schedule 7 of the authorisations for both Hunterston B and Torness in order to ensure that the transferred waste only consists of LLW and is disposed of within a reasonable timescale. In relation to Hunterston B, the following conditions have been added:

"7*.1.2In relation to LLW disposed of to the Authorisation Holder's premises at Torness Power Station, the LLW so disposed must be disposed of from Torness Power Station no later than 6 months after it leaves the Authorised Premises.*

7.1.3 The Authorisation Holder must dispose of from the Authorised Premises; any LLW disposed of from Torness Power Station to the Authorised Premises no later than 6 months after it leaves Torness Power Station."

In relation to Torness, the following mirror conditions have been added:

"7*.1.2In relation to LLW disposed of to the Authorisation Holder's premises at Hunterston B Power Station, the LLW so disposed must be disposed of from Hunterston B Power Station no later than 6 months after it leaves the Authorised Premises.*

7.1.3 The Authorisation Holder must dispose of from the Authorised Premises; any LLW disposed of from Hunterston B Power Station to the Authorised Premises no later than 6 months after it leaves Hunterston B Power Station."

In addition, Table 3.1 has been amended to specifically permit LLW to be transferred to the other EDF Scottish station.

These changes represent a change to the standard template of conditions for nuclear authorisations. SEPA believes that these conditions will ensure that this disposal option will only apply to LLW and that LLW received at Hunterston B or Torness will be disposed of within a reasonably limited time period. The changes will allow EDF to carry out a bulking up operation involving Hunterston B and/or Torness provided that the operation begins in Scotland and the disposal represents BPM. SEPA believes this is reasonable given that there are no treatment and disposal facilities currently located within Scotland.

A copy of the Schedules to the Notice of Variation has been included as Appendices 7 and 8.

3.4 Company Name Change

EDF has applied to change the name of the Authorisation Holder appearing on the front sheet of the RSA93 authorisation from British Energy Generation Limited to EDF Energy Nuclear Generation Limited. The request has been made to align the authorisation with the current name for corporate branding purposes.

No objections to this were received as part of the public, discretionary or statutory consultations.

The registered company number for EDF, as it appears in Companies House (03076445), did not change when the company was bought over in 2011 and, as a result, there was no requirement to issue a new authorisation to EDF on the grounds that the legal entity did not change.

RSA93 gives SEPA the power to vary limitations and conditions attached to an RSA93 Authorisation but not to vary the Authorisation itself. It is the Authorisation which details the holder of the Authorisation. SEPA does have discretion to issue a new authorisation instead of a variation, and as a consequence, the name of the Authorisation Holder could be changed. However, there is a genuine expectation that as part of issuing a new authorisation, all limits and conditions will have been reviewed. This was not done and to do so would result in an unnecessary delay in granting the other aspects of the variation which the applicant is keen to receive and begin to use.

Therefore, the name change has not been carried out.

4 OTHER APPLICATION DETERMINATION CONSIDERATIONS

4.1 Radiological Protection Principles

When considering any application to dispose of radioactive waste, SEPA is guided by the radiological protection principles recommended by the International Commission on Radiological Protection (ICRP) in ICRP60 and given effect within the European Community by Council Directive 96/29/EURATOM, referred to as the Basic Safety Standards Directive. In May 2000, the Scottish Executive, the predecessor to Scottish Government, issued a Direction to SEPA, the Radioactive Substances (Basic Safety Standards) (Scotland) Direction 2000 (2000 Direction), specifying a duty on SEPA to observe the requirements of the Directive.

For radioactive substances, the system of protection is based on three principles: (i) justification of a practice, (ii) optimisation of protection and (iii) the application of individual dose limits.

4.1.1 Justification of Practices

The principle of justification states that: "*No practice involving exposure to radiation should be adopted unless it produces sufficient benefit to the exposed individuals or to society to offset the radiation detriment it causes*". The requirement for justification is satisfied by the Justification of Practices Involving Ionising Radiation Regulations 2004 and is regulated by Government.

As part of its routine procedure for assessing applications under RSA93, SEPA ensures that the practices resulting in exposure to ionising radiation have been justified. If practices are not found on the register of justified practices or the list of existing practices, then the application for an RSA93 authorisation will be refused.

The list of existing practices includes "*generation of electricity by nuclear reactors - operation of advanced gas-cooled power stations*". This covers the operations at both stations. Furthermore, the disposal of radioactive waste arising from a justified practice is considered to be an inevitable consequence of that practice and therefore does not require separate justification.

The proposed variation does not represent a change in practice, and SEPA is not aware of any new and important evidence about the efficacy or the consequences of the practice. It is therefore not necessary for SEPA to seek a justification decision from the Justifying Authority with regard to the proposals of this application.

4.1.2 Optimisation of Protection (Best Practical Means)

It is SEPA's opinion that the process that a radioactive substance user goes through in order to be able to demonstrate that they are using BPM is equivalent to the concept of "optimisation" as used in the radiological protection framework. SEPA has set out how it complies with the requirement to ensure that exposures to ionising

radiation of the public are kept as low as reasonably achievable (ALARA) and the role of BPM in a published document, available on SEPA's website[5].

The 2000 Direction requirement to keep all exposure to radiation as low as reasonably achievable, taking into account economic and social factors as part of the optimisation principle, is given effect within authorisations by the inclusion of conditions requiring the Authorisation Holder to:

- Use BPM to minimise the activity and volume of radioactive waste generated;
- Use BPM to minimise the total activity of radioactive waste that is discharged to the environment; and
- Use BPM to minimise the radiological effects of radioactive discharges on the environment and members of the public.

In addition, with regard to disposals by transfer of both LLW and ILW and to the receipt of LLW from other EDF sites, SEPA has imposed conditions that require EDF to demonstrate that the disposal represents BPM for the disposal of that particular waste. Compliance with these conditions will form part of SEPA's routine regulatory activities.

4.1.3 Application of Individual Dose Limits

SEPA is required by the 2000 Direction to assess doses to the public from the expected disposals and compare the doses with appropriate criteria. These criteria are: the source constraint (0.3 milliSieverts per year), the site dose constraint (0.5 milliSieverts per year) and the annual dose limit (1 milliSievert per year).

The authorised limits for discharge of gaseous and aqueous effluents are not being changed as a result of the proposed variations. Therefore, the dose to the public calculated for the 2007 application, which was calculated to be well below the 0.3 milliSieverts (mSv) per year constraint, remains valid.

SEPA, in conjunction with the Environment Agency, has recently reviewed the authorised discharge limits relating to all EDF nuclear sites in the UK. For further information on the review, refer to Section 4.8. The conclusion of the review was that the authorised limits continue to be fit for purpose.

The exposure to radioactivity is assessed annually by SEPA to ensure that radiation doses remain well below the annual dose limit of 1 mSv. The latest published results[6] are those for 2014.

For Hunterston B the total dose from all pathways and sources of radiation was 0.021mSv. Direct radiation from the station was the dominant factor and the most exposed person was a pre-natal child of local inhabitants. The total doses are low and there is a downward trend which reflects the downward trend in direct radiation. Specific assessments are carried out for high rate consumers of locally grown foods and of locally caught seafood. These doses are very low at 0.009mSv for the

[5] Satisfying the ALARA requirement and the role of Best Practicable Means, 2012, www.sepa.org.uk
[6] Radioactivity in Food and the Environment, 2014 SEPA.

terrestrial food consumer and 0.005mSv for the marine food consumer. Hunterston B Power Station is co-located with Hunterston A Power Station, which is operated by Magnox Limited. It ceased electricity generation in 1990 and is continuing to be decommissioned. Due to the geographic proximity of the two stations these retrospective assessments cover the activities of both Hunterston A and B.

For Torness the total dose from all pathways and sources of radiation was 0.020mSv. Direct radiation from the station was the dominant factor and the most exposed person was an adult. The total doses are low and remain broadly similar year to year. Specific assessments are carried out for high rate consumers of locally grown foods and of locally caught seafood. These doses are very low at 0.006mSv for the terrestrial food consumer and 0.005mSv for the marine food consumer.

The proposed changes to the authorisation will not affect the doses received by the public, which, in any case, remain well within the statutory dose limits and constraints.

4.2 Sustainable Development

SEPA was established through the provisions of the Environment Act 1995 (EA95), and it is through that Act that SEPA is given its powers and duties. The Regulatory Reform (Scotland) Act 2014 amended EA95 by inserting a new General Purpose for SEPA. Section 20A of EA95 now sets out the General Purpose of SEPA as:

(1) SEPA is to carry out the functions conferred on it by or under this Act or any other enactment for the purpose of protecting and improving the environment (including managing natural resources in a sustainable way).

(2) In carrying out its functions for that purpose SEPA must, except to the extent that it would be inconsistent with subsection (1) to do so, contribute to -

(a) Improving the health and well-being of people in Scotland, and

(b) Achieving sustainable economic growth.

Section 31 of EA95 requires SEPA to have due regard to any guidance the Secretary of State may give with regards to aims and objectives he considers it appropriate for SEPA to pursue in performing its function towards attaining the objective of achieving sustainable development. In March 2015 Scottish Government published its "Statutory Guidance on the General Purpose of the Scottish Environment Protection Agency and its Contribution Towards Sustainable Development" in which it defines sustainable economic growth as: *"…building a dynamic and growing economy that will provide prosperity and opportunities for all, while ensuring that future generations can enjoy a better quality of life too*".

Furthermore, since January 2011, the Public Bodies Duties in Section 44 of the Climate Change (Scotland) Act 2009 have required SEPA, when exercising its functions, to act in the way that it considers is most sustainable. The guidance to support public bodies in exercising their duties under this Act clarifies that acting sustainably requires public bodies to take account of sustainable development and

routinely balance a number of economic, social and environmental impacts when making and implementing decisions.

SEPA believes the authorisation conditions relating to BPM satisfy the general requirements regarding sustainability. Further detail can be obtained on these conditions under Section 4.1.2 above.

SEPA also believes that by removing the restrictions on the disposal by transfer of LLW to persons within and outside of the United Kingdom, allowing the receipt and subsequent disposal by transfer of LLW from the two Scottish EDF sites and granting the ability to dispose of by transfer specified ILW, it has removed a number of administrative obstacles in the management of radioactive wastes by EDF, and in so doing will have contributed to achieving sustainable economic growth.

Therefore, SEPA is confident that its duties under EA95 have been satisfied.

4.3 Conservation/Protected Sites

SEPA is bound by the Conservation (Natural Habitats & Conservation) Regulations 1994 (Habitats Regulations) which implement Council Directive 92/34/EC on the conservation of natural habitats and wild flora and fauna (the Habitats Directive), and pick up and strengthen the requirements of Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive) as well as the Nature Conservation (Scotland) Act 2004, all of which provide the principal legislative components of an integrated system for nature conservation within Scotland. As a public body under the 2004 Act, SEPA is required to further the conservation of biodiversity when exercising its regulatory functions.

Assessments were carried out during the determination of the Authorisations granted in 2007. This identified three sites that may be affected by discharges from Hunterston B and four from Torness. The potential source-receptor pathways were identified as the dispersion of radionuclides in the Firth of Clyde and the Firth of Forth, accumulation in environmental compartments and subsequent uptake by marine organisms and dispersion of radionuclides in the atmosphere and uptake by terrestrial-based biota. The assessment of these pathways indicated that the discharges of radioactive waste to the local environment from Hunterston B and Torness Power Stations at the then proposed limits and now authorised limits would be unlikely to have a significant adverse effect on the integrity of the sites identified. Thus, the status of the identified sites had no impact upon the decision to grant the authorisation.

Subsequently to the granting of the authorisation in 2007, SEPA has adopted the ERICA[7] assessment tool for determining the impact of radioactive discharges on non-human biota. The key outputs of ERICA are dose rates and risk quotients. The risk quotient is the ratio of the predicted environmental dose rate and the benchmark dose rate assumed to be environmentally 'safe'. The default benchmark in ERICA is a screening dose rate for incremental exposure of 10 µGy h^{-1}. This value is

[7] Environmental Risk from Ionising Contaminants: Assessment and Management (ERICA). CEC

considered to be sufficiently cautious that if it is not exceeded there would not be a deleterious effect on designated sites from the discharge.

SEPA carried out a dose assessment to non-human species for disposals to air and water as part of the re-authorisation application by Magnox Ltd for the Hunterston A nuclear licensed site in 2014, which included Hunterston B and in 2015 for Torness. The assessment considered the discharges from the stations at their authorised limits. The dose rates to non-human species as a result of exposure to the gaseous and liquid discharges were all predicted to be less than the screening dose rate of 10 micro Grays per hour (μGy h^{-1}). Therefore the exposure of non-human species to the discharges continues to be of negligible radiological concern.

The proposed variation does not increase any of the radioactive limits covering direct disposal to the local environment, and therefore, the assessments made as part of the original Authorisation granted in 2007 and subsequently are still relevant. Hence, SEPA concludes that the presence of conservation sites in the vicinity of Hunterston B and Torness have no impact on the decision to grant the variation.

4.4 EURATOM Article 37

As a Member State of the European Union, UK activities involving radioactive substances are governed by legislation set down under the Euratom Treaty.

Article 37 of the EURATOM treaty states:

> *"Each Member State shall provide the European Commission with such general data relating to any plan for the disposal of radioactive waste in whatever form as will make it possible to determine whether the implementation of such a plan is liable to result in the radioactive contamination of the water, soil or airspace of another Member State."*

Hunterston B and Torness were commissioned after the UK became a signatory to the Euratom Treaty. Nevertheless, an Article 37 submission (the "plan") was prepared for each site. A favourable opinion was received from the European Commission (EC) in May 1975 for Hunterston and in June 1987 for Torness.

Any change to the plan for the disposal of radioactive waste from the station is viewed in light of a change to the plan on which the EC has already given an opinion. It is not necessary to make an Article 37 submission every time that an authorisation is changed. For those plans on which an opinion has been given, it is necessary only if the change of plan falls within the terms of the EC recommendations on the application of Article 37 of the Euratom Treaty.

For the Scottish civil nuclear sector, Scottish Government decides when submissions are required to comply with Article 37 requirements. SEPA provides technical advice to Government and co-ordinates submissions on behalf of the Scottish Government.

SEPA has considered the requirement for Article 37 submission with regards to the variation to the Hunterston B and Torness Authorisations. The variation does not seek to increase disposal limits, and therefore, there is no change to existing Article 37 data which has been submitted to the EC. Consequently, there is no requirement

for a modification to the plan already submitted to the EC under Article 37 in this case.

4.5 OSPAR

The Oslo and Paris (OSPAR) Convention for the Protection of the Marine Environment of the North East Atlantic was agreed in 1992. Countries that have either a North East Atlantic coast or discharge into the OSPAR maritime area via their rivers are Contracting Parties to the Convention. SEPA has a duty to implement the general requirements of the OSPAR Convention with regard to discharges from Scotland.

At the 1998 Ministerial meeting of the OSPAR Commission, Contracting Parties agreed an OSPAR strategy for radioactive substances. The objective of the OSPAR strategy is to prevent pollution of the maritime area from ionising radiation through progressive and substantial reductions of discharges, emissions and losses of radioactive substances. Each Contracting Party was required to produce a national plan to demonstrate how it would achieve the strategy objectives. This was satisfied by the publication of the UK strategy for radioactive discharges 2001-2020[8].

The variations will not change the authorised limits for radioactive discharges to the marine environment from Hunterston B or Torness. Whilst it is noted that there may be increased liquid discharges from the treatment or disposal of the radioactive waste at the receiving waste management facility, these will be within the receiving site's authorised limits which have been set in accordance with the OSPAR and UK strategies. Therefore, SEPA considers that the decision to vary the authorisations does not challenge the strategy's principal aim of progressive and substantial reduction of radioactive discharges.

4.6 Human Rights/Equality

The Scotland Act 1998 and the Human Rights Act 98 (HRA98) incorporate the provisions of the European Convention of Human Rights into Scots law. Under the HRA98, SEPA must consider whether its decisions in respect of an authorisation under RSA93 will result in any potential or actual breach of a Convention right. If SEPA does identify such a breach it must then consider whether it has the discretion to act otherwise, as its primary obligation must be to fulfil its statutory duty. Where SEPA does have discretion and the Convention right at issue is not absolute, it must then consider whether its decision is justified.

SEPA has considered the requirements of HRA98 in the context of the proposed variation and in particular the following Convention Rights:

- Article 2 (right to life);
- Article 6 (right to a fair trial);
- Article 8 (right to privacy); and

[8] UK strategy for radioactive discharges 2001-2020, Department for the Environment, Food and Rural Affairs, 2002

- Article 1 of the First Protocol (right to peaceful enjoyment of possessions).

Furthermore, the Equality Act 2010 and the Equality Act (Specific Duties)(Scotland) Regulations 2012 set out a single equality duty and statutory specific duties for listed public bodies in Scotland. These organisations, which include SEPA, must meet these duties in order to ensure positive and real change for people with protected characteristics. SEPA must take into account the need to:

- Eliminate unlawful discrimination, harassment, victimisation and other prohibited conduct;
- Advance equality of opportunity between people who share a relevant protected characteristic and those who do not;
- Foster good relations between people who share a protected characteristic and those who do not.

SEPA considers that its regulatory process, including the statutory and discretionary/public consultations and the authorisation itself are compatible with the above Convention Rights and are consistent with our duties under the Equality Act 2010.

4.7 Controlled Activities Regulations Review

The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) lists RSA93 authorisations as being “relevant licences” for the purposes of CAR. It requires that the non-radioactive properties of the radioactive discharges to the water environment must be considered, and, if appropriate, limitations and conditions imposed in order to provide adequate protection.

SEPA has carried out a review of the aqueous discharges at Hunterston B and Torness in relation to CAR. The review highlighted that the radioactive discharges enter the cooling water system before being discharged to the marine environment. Although radioactive discharges do not occur continuously, cooling water discharges are nearly continuous.

Since the radioactive discharge does not directly enter the water environment, SEPA is of the opinion that the RSA93 authorisation is not a relevant licence under CAR. The stations already hold CAR licences for the cooling water that contains the necessary conditions to ensure compliance with these requirements.

However SEPA has varied the authorisations to clarify that the disposals are to cooling waters rather than directly to the water environment

4.7.1 Changes to the Authorisation relating to the CAR Review

The requirement to have a minimum flow rate of cooling water present at the time of discharge has been added to condition 5.1.1.2. This will ensure that the radioactive discharge is made into cooling water and that it will be carried to the end of the pipe and the marine environment beyond. The tidal window limits have been retained in both authorisations.

The national grid reference in table 5.1 has been amended to reflect the point of discharge is into the cooling water system and not directly into the marine environment.

4.8 Review of Authorisation

One respondent to the public consultation expressed concern that the standard template for nuclear authorisations did not include an expiry date or formal review mechanism.

The requirement for review is detailed in RSA93 and requires that authorisations are periodically reviewed, without specifying a particular timescale. SEPA, in conjunction with the EA, recently reviewed the assumptions and fault scenarios associated with the current authorised limits for all EDF nuclear stations. The majority of the review was conducted between May 2014 and May 2015 and was delivered through a staged process agreed with EDF.

Both environment agencies concluded[9] that the authorised limits for discharge of radioactive aqueous and gaseous effluents continue to ensure that the environment is protected until at least the stated end of operational life for all the EDF stations, including the Scottish stations, and that EDF continues to demonstrate the application of BPM to minimise discharges to the environment. Plant life time extension for Hunterston B was considered as part of the review. .

4.9 Transport of Radioactive Waste

A number of respondents to the public consultation expressed concern regarding the risks associated with the transport of radioactive waste, and in particular ILW.

As pointed out in the consultation document which accompanied the discretionary/public consultation, the transportation of radioactive waste falls outside of SEPA's remit. ONR is the regulator in relation to both road and rail transport of radioactive waste. The Civil Aviation Authority has this responsibility for air transport and the Maritime and Coastguard Agency is the regulator for sea transport. All modes of transport are regulated in accordance with the appropriate transport regulations[10]. The transport of radioactive substances is regulated internationally by agreements and European Directives, with biennial updates of the Directives to take account of technological advances.

[9] A review of discharge limits at EDF Energy nuclear power stations, SEPA/EA, 2015
[10] Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009

5 DECISION

For the reasons set out in this document, SEPA is minded to issue Notices of Variation in respect of the current Certificates of Authorisation for the disposal of radioactive waste issued to EDF Energy Nuclear Generation Limited. SEPA concludes that the limitations and conditions of the authorisations will, if adhered to, effectively protect human health, the safety of the food chain and the environment generally. Appendices 7 and 8 give the Schedules to the Notices of Variation that SEPA is minded to grant.

6 SEPA INITIATED CHANGES TO THE AUTHORISATION

The variation request by EDF provided an opportunity to update, for administrative purposes, the conditions of the authorisations to those currently used by SEPA. These conditions formed part of the Step 2 consultation with discretionary consultees and the public. In doing this, SEPA has chosen to delete all the existing schedules of conditions attached to the current authorisations and replace them with those taken from the current nuclear template so that the authorisation will reflect the most current set of conditions SEPA has available. The existing limits on discharges of both gaseous and aqueous radioactive effluents to the environment have been retained without change.

There are a number of minor changes which have been introduced as a result of varying in the new schedules of conditions. The following sections provide details of these changes.

6.1 Interpretation of Terms

In addition to those changes discussed in Section 3, the following terms have been added to the Interpretation of Terms section in the Authorisations:

Term	Reason Added
Environmental Permit	Refers to relevant permits issued by the EA/NRW
Management system	Condition part of new standard template
Radioactive Waste Advisor	New terminology for Qualified Expert further explained below, replaces Qualified Expert
samples	New definition added such the emphasis on measurements for the purpose of activity is removed
Transfrontier Shipment of Waste Regulations	European Regulations are referred to in relation to the shipment of waste to waste disposal facilities not in the UK
3(b) definition of best practicable means	Definition as per SEPA's standard template

The following terms are no longer required and have been deleted:

- "best practicable environmental option"
- "decommissioning"
- "Low Level Waste Repository Site Operator"

- "LLWR"
- Organic liquid waste
- "Qualified Expert"
- "Site Plan"
- "Sellafield Site Operator"

6.2 Radioactive Waste Adviser

In accordance with Council Directive 96/29/EURATOM, which lays down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (Basic Safety Standards Directive - BSSD), SEPA requires persons who hold an authorisation under RSA93 to accumulate or dispose of radioactive waste to appoint in writing suitable Radioactive Waste Advisers (RWA).

An RWA is considered by SEPA to be someone who has the specific knowledge, experience and competence required for giving advice on the particular radioactive waste management and environmental radiation protection issues for which the Authorisation Holder is making the appointment. In broad terms, this replaces the current Authorisation requirement for the Authorisation Holder to have suitable Qualified Experts.

6.3 Remediation of Contamination

In accordance with the SEPA guidance[11] and in line with SEPA's duties under EA95 to address sustainable development considerations, SEPA has developed conditions to require that the Authorisation Holder uses BPM to remediate radioactive contamination and to carry out that remediation as soon as reasonably practicable. Addressing radioactive contamination in a timely manner will prevent it generating additional unnecessary radioactive wastes requiring disposal as well as potentially becoming an issue for future generations.

6.4 Measurement of Total & Non Alpha Emitting Radionuclides (Aqueous Waste)

SEPA recognises that the method used to determine total alpha and non-alpha emitting radionuclides can significantly influence the result, and historically, SEPA has specified the methodology by which this is to be done in authorisations. However, it is now recognised that this may stifle the development and implementation of BPM. SEPA now requires the Authorisation Holder to determine which method represents BPM by not specifying the method to be used. As a result SEPA has removed conditions from both the gaseous and liquid schedules relating to specific methods of analysis.

[11] *SEPA Guidance on Revoking Authorisations and Cancelling Registrations Granted under the Radioactive Substances Act 1993 Part 1: Principles and Expectations, 2014, www.sepa.org.uk*

SEPA has adopted this approach for a number of other nuclear sites in Scotland which have recently been re-authorised or have had existing authorisations varied.

6.5 Information Requirements (Schedule 9)

6.5.1 Three Yearly Reports

The current authorisation contains a number of informational requirements to be provided to SEPA on a regular basis. These include a series of reports to be produced every 3 years on the following:

- Whether the current disposal routes continue to represent the best practicable environmental option for radioactive waste disposal from the Authorised Premises;
- National and international developments in best practice for minimising all radioactive waste disposals;
- The means used to assess the activity of radionuclides in disposals and to determine compliance with the authorisation; and
- The radionuclide composition of all waste being disposed of under the authorisation.

In accordance with these requirements, EDF submitted the first of the three yearly reports in 2010. SEPA did not require the reports due in 2013 on the basis that significant work had been done, and was continuing to be done, to implement the recommendations made in the 2010 reports such that they became part of normal business for EDF.

The current authorisation also has a requirement for an annual report detailing the Authorisation Holder's efforts to reduce radioactive disposals from the station (the annual BPM report). SEPA has worked with EDF in recent years with regards the contents of this report. Whilst there is still opportunity for further development, SEPA now considers that annual BPM report to be a valuable demonstration of how BPM is implemented at the stations.

SEPA and the EA carried out a review of the authorised discharge limits for the EDF fleet of nuclear power stations in 2014 (see Section 4.8 above). The review concluded that the current authorised limits continue to ensure protection of the environment at least until the end of the current operational life for the EDF stations and that EDF continues to apply BPM to discharges. In light of this review, the continuing development of the annual BPM report and the on-going work by EDF to incorporate these items into its normal business, SEPA does not intend to request the next series of reports which are due again in 2016.

There are a number of optional information conditions in Schedule 9 of SEPA's authorisation template for nuclear sites. This allows SEPA to select those that are most appropriate for individual sites. These requirements have changed since the authorisation was issued in 2007. The requirement to demonstrate that the disposal routes continue to represent Best Practicable Environmental Option (BPEO) has

been removed on the grounds that SEPA now considers BPEO to be part of BPM[12], which is better captured in the annual BPM report.

With regard to the means used to assess the activity of the waste and the radionuclide composition of the waste, SEPA believes that the following existing general conditions adequately cover these requirements for operational nuclear power stations where these parameters are not expected to significantly change:

2.3.1 The Authorisation Holder shall take samples and conduct measurements, tests, surveys, analyses and calculations to determine its compliance with the limitations and conditions of this Authorisation.

2.3.6 The Authorisation Holder shall use the best practicable means when taking samples and conducting measurements, tests, surveys, analyses and calculations to determine its compliance with the limitations and conditions of this Authorisation, unless particular means are specified in this Authorisation.

Furthermore, with regard to disposals by transfer both within and outside of the UK, the authorisation requires EDF to specifically determine the radionuclides contained in the radioactive waste and their radioactivity (paragraphs 7.2.1.1 and 8.2.1.1) prior to removal from the Authorised Premises.

Therefore, with the exception of the annual BPM report, SEPA has removed the requirement for these reports.

It should be noted that should SEPA require any further information to be submitted, regardless of whether it appears in Schedule 9, the authorisation allows SEPA to request it in any format. Furthermore, if SEPA believes that the information should be submitted on a regular basis, this requirement can be varied into Schedule 9 at any time.

6.5.2 Standardised Reporting of Discharges

In 2010 SEPA and EA published joint guidance on how the UK would implement the European Commission's recommendation 2004/2/EURATOM on standardised information on radioactive airborne and liquid discharges into the environment from nuclear power reactors and reprocessing plants in normal operation. The guidance[13] referred to is available on SEPA's website. This will provide standardised discharge information that SEPA can report to Scottish Government for onward reporting to the EC. This will, in turn, allow the EC to compare radioactive discharges from nuclear power stations across Europe more effectively.

SEPA has implemented this guidance by introducing the requirement to report in accordance with this guidance into the standard reporting condition in Schedule 9.

[12] Satisfying the ALARA requirement and the role of Best Practicable Means, SEPA, 2012

[13] *Radiological Monitoring Technical Guidance Note 1- Standardised Reporting of Radioactive Discharges from Nuclear Sites (TGN1), SEPA/EA, 2010*

6.5.3 Dose Assessment of Non-Human Species

SEPA carried out an assessment of the impacts of radioactive discharges on non-human biota in proximity to the station prior to issuing the authorisation in 2007. In 2014, an additional assessment was carried out for the Hunterston B site as part of the re-authorisation of the Hunterston A site and separately in 2015 for Torness. (See Section 4.3 above)

In order to confirm the validity of the SEPA assessments and to ensure that non-human biota continues to be protected in the future, SEPA is requiring EDF to carry out its own assessments for non-human species residing within environmentally sensitive areas within 20 km of the station every three years and submit the findings to SEPA. As part of this exercise, EDF will need to consider the discharges made over the previous 3 years (retrospective) as well as those expected to be made over the next 3 years (prospective).

6.6 Samples of Radioactive Waste

Paragraph 2.3.7 of both Authorisations is the condition which addresses the issue of sending samples of radioactive waste off-site for testing. It should be noted that given the specialised nature of this activity it may be necessary to send samples abroad. Samples may also have an activity concentration in the ILW range.

EDF has operational experience of sending samples to both UK and overseas laboratories for testing. The testing may involve the determination of the radionuclide composition or activity, or it may involve some other physical or chemical characteristic of the sample or component.

SEPA considered the need to specify limits for activity and volume of the samples of ILW that could be dispatched. SEPA recognises that there may be a genuine need for off-site analysis of samples to be undertaken and is of the view that including such limits on the samples that could be dispatched is overly restrictive and is not considered to be necessary. The inclusion of the phrase in the amended condition, "*…but only where the quantity dispatched is the minimum practicable quantity that is necessary to carry out the planned tests*" is sufficient in this instance to prevent sham disposals.

EDF is required to keep records of samples dispatched off-site for testing and a review of these records will form part of SEPA's routine regulatory activities.

LIST OF REFERENCES

Basic Principles of Radioactive Waste Management, 2015

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009

Climate Change (Scotland) Act 2009

Conservation (Natural Habitats and Conservation) Regulations 1994

Council Directive 79/409/EEC on the conservation of wild birds

Council Directive 93/34/EC on the conservation of natural habitats and wild flora and fauna

Council Directive 96/29/EURATOM Basic Safety Standards Directive

Council Directive 2004/02/EIRATOM Standardised Information on Radioactive Airborne and Liquid Discharges into the Environment from Nuclear Power Stations and Reprocessing Plants in Normal Operation

Council Directive 2006/117/EURATOM on the Supervision and Control of Shipments of Radioactive waste and Spent Fuel

Environment Act 1995

Environmental Permitting (England and Wales) Regulations 2010

Equality Act 2010

Equality Act (Specific Duties)(Scotland) Regulations 2012

Human Rights Act 1998

Justification of Practices involving Ionising Radiation Regulations 2004

Nature Conservation (Scotland) Act 2004

Oslo and Paris Convention for the Protection of the Marine Environment of the North East Atlantic

Radioactive Substances Act 1993

Radioactive Substances (Basic Safety Standards)(Scotland) Direction 2000

Radioactive Substances Bill /H.L.7, Notes on Clauses House of Commons, 4 March 1960

Radioactivity in Food and the Environment 20 (2014)

Radiological Monitoring Technical Guidance Note 1 - Standardised Reporting of Radioactive Discharges from Nuclear Sites, 2010

Regulatory Reform (Scotland) Act 2014

Review of discharge limits at EDF Energy nuclear power stations, 2015

Review of Radioactive Waste Management Policy, Final Conclusions, Command Paper (Cm) 2919, 1995

Satisfying the ALARA requirement and the role of Best Practicable Means, 2012

Scotland Act 1998

Scotland's Higher Activity Waste Policy 2011

SEPA Guidance on Revoking Authorisations and Cancelling Registrations Granted under the Radioactive Substances Act 1993 Part 1: Principles and Expectations, 2014

SEPA Policy on the Regulation of Disposal of Radioactive Low Level Waste from Nuclear Sites. 2012.

Statutory Guidance on the General Purpose of the Scottish Environment Protection Agency and its Contribution Towards Sustainable Development, 2015

Transfrontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008

UK strategy for radioactive discharges 2001-2020

UK strategy for the management of solid low level radioactive waste from the nuclear industry

Water Environment (Controlled Activities)(Scotland) Regulations 2011

LIST OF ABBREVIATIONS

AGR - Advanced Gas-cooled Reactor

ALARA- As Low As Reasonably Achievable

BEGL - British Energy Generation Ltd

BPEO - Best Practicable Environmental Option

BPM - Best Practicable Means

Bq - becquerel

BSS Direction - Radioactive Substances (Basic Safety Standards)(Scotland) Direction 2000

CAR - Water Environment (Controlled Activities)(Scotland) Act 2011

COMARE- Committee on the Medical Effects of Radiation in the Environment

EA- Environment Agency

EA95 - Environment Act 1995

EC - European Commission

EDF - EDF Energy Nuclear Generation Ltd

ERICA - Environmental Risk from Ionising Contaminants: Assessment & Management

EU - European Union

FSA/FSS - Food Standards Agency/Food Standards Scotland

HAW - Higher Activity Waste

HRA98 - Human Rights Act 1998

HSE - Health and Safety Executive

ICRP - International Commission on Radiological Protection

ILW - Intermediate Level Waste

LLW - Low Level Waste

mSv – milli Sievert

NAIR - National Incidents involving Radioactivity

NDA - Nuclear Decommissioning Authority

NRW- Natural Resource Wales

OECD - Organisation for Economic Co-operation and Development

ONR - Office for Nuclear Regulation

OSPAR - Oslo Paris Convention for the Protection of the Marine Environment of the North East Atlantic

PLEX - Plant Life Extension

RSA93 - Radioactive Substances Act 1993

RWA - Radioactive Waste Adviser

SEPA - Scottish Environment Protection Agency

SNH- Scottish Natural Heritage

TFS - Transfrontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008

APPENDICES

APPENDIX 1: DISCRETIONARY CONSULTEE RESPONSES

The following table summarises the responses received from the second stage consultation discretionary consultees for both Hunterston B and Torness Power Stations.

Where there are numbered comments in the table these comments were made in direct response to questions asked by SEPA in the consultation document. These questions have been reproduced below.

1. Do you have any comments on the proposed changes to the Authorisation for disposal of Low Level Wastes from Hunterston B and Torness, in particular the removal of specified destinations?

2. Do you have any comments on the proposed changes to the Authorisation for the disposal of higher activity radioactive wastes from Hunterston B and Torness?

3. Do you have any comments on the proposed changes to remove the limits and physical/chemical descriptors from the radioactive waste disposed of by transfer from the Authorisation for Hunterston B and Torness?

4. Do you have any comments on the proposed changes to the Authorisation for the acceptance of radioactive wastes at Hunterston B and Torness from other EDF Energy stations?

5. Do you have any comments on the proposal to change the name appearing on the front page of the Authorisation for Hunterston B or Torness?

6. Do you have any comments on the proposed changes to the Authorisation, in particular the importation of standard conditions from the SEPA template for nuclear Authorisations?

Responder	Comments	SEPA Response
COMARE	1. COMARE is content with the request for the removal of specified destinations for disposal of Low Level Wastes (LLWs). The Committee notes that the request is in line with current SEPA policy on the regulation of disposal of radioactive LLW from nuclear sites and agrees with the Office for Nuclear Regulation (ONR) that it would facilitate the timely disposal of radioactive waste.	Comments noted
	2. COMARE is content with this request and notes that the removal of higher activity wastes to off-site facilities would permit its transformation into LLW that would be	Comments noted

	suitable for disposal.	
	3. COMARE notes that the proposal to remove limits and physical / chemical descriptors from the waste places the emphasis of control of these characteristics on the receiving sites' Waste Acceptance Criteria, which are specified in the permit issued by SEPA. COMARE believes that this proposal is acceptable and allows a sensible approach to the disposal of LLW.	Comments noted
	4. COMARE has no objections to this request and notes that ONR has stated that it has no objections provided that an acceptable safety justification is in place.	Comments noted
	5. COMARE has no comments other than the change of name is sensible.	Comments noted
	6. COMARE has no comments.	Comments noted
	In addition, COMARE notes that the application by EDF does not impact on the existing authorised gaseous and aqueous discharge limits and that these limits restrict the effective dose to a member of the public to well below the dose constraint of 0.3 mSv per annum and the dose rate to non-human species to less than the screening dose rate of 10 µGy per hour.	Comments noted
SNH	We note that there will be no additional gaseous or aqueous discharges from either of the power stations as a result of the proposed changes. We also understand that appropriate measures, or regulatory procedures, are in place for the safe handling and storage of any new waste material, and the transport of waste material to and from any additional facilities. We therefore have no comments.	Comments noted
EA	We do not have any comments that need to be considered by SEPA in respect to the variation requested by EDF Energy Nuclear Generation Limited. For information, as part of the transition from the Radioactive	Comments noted

	Substances Act 1993 to the Environmental Permitting (England and Wales) Regulations 2010 and to meet with Government guidance in respect to applying the waste hierarchy, we varied all of the permits in England to remove the transfer limits and named treatment / disposal facilities. This has enabled EDF Energy Nuclear Generation Limited to optimise radioactive waste treatment and disposal options.	
Scottish Water	1. Any proposals to change the Authorisations should consider the potential risk of release of materials to the water environment. In particular, all necessary steps should be taken to understand and mitigate the associated risks to prevent the releases of these materials to the drainage systems serving the power station sites, as well as those serving the disposal sites.	The applications and the associated variations do not affect the authorised gaseous and liquid discharges from either station. Therefore, there should be no increased risk to surface waters, drinking water, drainage systems or Scottish Water staff operating in vicinity of the station.
	2. We would like to ensure risks to surface waters, drinking water supply and drainage systems are fully considered and have appropriate mitigation in place. We would also like to be assured that any activities undertaken will not present any risk to SW staff operating in the vicinity of the sites.	Comment as above
Public Health England	1. It is important to ensure that the use of new disposal options is clearly justified. This should account for factors such as the possibility of accidents during transport of waste to the proposed facility and consideration of the regulatory regime in the proposed country to ensure that radiation protection standards are consistent with those applied in the UK.	1. Conditions are in place to address these points. See Sections 3.1 and 3.2 for further explanation.
	2 PHE would make the comment that a condition of transfer of ILW off-site should be that any receiving site has been authorised or permitted to accumulate ILW and dispose of the resulting LLW.	2. Conditions are in place to address these points. See Section 3.2 for further explanation.

	3. No.	3. Comment noted
	4. Where the stations receive waste for interim storage, there will be no processing or treatment of waste and therefore no impact on the stations gaseous or liquid discharges. Given this, PHE does not have any comments.	4. The applications and the associated variations do not affect the authorised gaseous and liquid discharges from either station. See Section 3.3 for further details.
	5. No.	5. Comment noted
	6. No.	6. Comment noted
East Lothian Council	Noted that the aim of the requested variation is to increase the number of disposal routes for radioactive waste to off-site facilities. Given the nature of the application, East Lothian Council has no objection.	Comments noted
City of Edinburgh Council	No response received	No response noted
Mid Lothian Council	No response received	No response noted
Borders Council	No response received	No response noted
East Lothian Health Board	No response received	No response noted
Torness Technical Local Liaison Committee	No response received	No response noted
NHS Ayrshire & Arran	Noted common aim of increasing the number of disposal routes for radioactive waste to off-site facilities. Based on the information provided, I have no objection to the requested changes.	Comments noted
North Ayrshire Council	1. The proposals to bring radioactive waste to Hunterston for temporary storage and onward disposal are considered to be contrary to the Scottish Government's 'near-site, near-surface' policy on the disposal of Higher Activity Radioactive Waste and are therefore not supported by the Council.	The proposals for temporary storage do not relate to ILW and therefore do not run contrary to Scotland's HAW Policy. See Section 3.3.

	2. The Council considers that there is a lack of information surrounding the proposals to receive waste at Hunterston from other EDF sites, and to transfer ILW waste originating at Hunterston B to other sites, in relation to:	2. SEPA requested further information from EDF and their response has been included in Appendices 3 and 4. See further discussion at Section 3..3
	a. Safe Transport: The proposals may lead to increased road vehicle movements of radioactive waste to and from the Hunterston B site to the detriment of the road network. No details of the method and frequency of transport or associated safety measures have been provided. Furthermore there is no clarification on whether transfer of waste consignments by rail has been considered;	a. Transport is outside of SEPA's remit - see Section 4.9.
	b. Safe Storage: There is no clarity on the volumes of waste that will be transferred to and from the site, the duration of the storage, and the safety measures governing the storage;	b. The on-site storage of waste is outside SEPA's remit. The variations have specified that waste accepted on to either station for the purposes of bulking up must be disposed of within 6 months from the date of their arrival, see Section 3.3.
	c. Origin of Waste: There are no details regarding the sources of waste which may be transferred to Hunterston B and whether this is likely to include overseas sources. Furthermore, there are no details regarding safety measures/risk assessments prepared in association with the proposals or any alternative options considered.	c. The variation only allows disposal of waste from the other Scottish station. The storage of the waste is a matter for ONR who require that all such transfers have acceptable safety justification see Section 3.3.
Hunterston Site Stakeholder Group	The current application from EDF Energy seeks authorisation to transfer waste from other authorised sites to Hunterston B (or from Hunterston B to other sites). This runs counter to the principles supported by the SSG and the basis upon which the Group was willing to support construction of an ILW store at Hunterston.	Comment noted

	Low Level Waste: EDF Energy wants to be able to transfer Low Level Waste (LLW) to Hunterston B and from Hunterston B to any authorised site rather than just locations specified by SEPA. EDF Energy also wants to be able to transfer LLW from other sites to Hunterston for interim storage, loading of containers and onward transfer. At the moment, transfers of LLW away from Hunterston must be made to specified locations. The locations currently specified appear to be restricted to the Low Level Waste Repository near Drigg in Cumbria and, for certain types of combustible waste, an incinerator in Southampton. Now EDF Energy wants permission to be able to transfer LLW to other incinerators and metal treatment facilities. The SSG would request that the current authorisation for LLW continue under the scrutiny of SEPA as it negates transport of LLW across the densely populated Central Belt.	The removal of specified wastes /destination for LLW accords with UK Policy and SEPA guidance. See Section 3.1. Transport is outside of SEPA's remit - see Section 4.9.
	Intermediate Level Waste: The Hunterston SSG is wary of any applications that are too general. For example the word interim is meaningless when it comes to timescales relating to radioactive waste... the Hunterston ILW store is "interim" i.e. 100-300 years. Does B station have an "interim" store, does it have a container loading facility and where is the ILW to be transferred to? The Hunterston SSG supports the Scottish government's Policy on HAW which 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.***" This means that ILW should be managed in facilities as near to the site where it was produced as is practicable so that the need to transport waste over long distances is minimal. The Consultation Document (para 6.2.2) says the policy does not preclude HAW leaving the site where it arose for treatment, where that treatment represents the Best Practicable Means (BPM). However, the application is clear: "***there will be***	The proposals for interim storage, loading of containers and onward transfer do not relate to ILW. See Section 3.3.

	no processing or treatment of waste" that has been transferred to Torness or Hunterston from another site. The transfer of ILW between Hunterston and Torness should therefore be rejected.	
	Hunterston ILW Store: The Hunterston SSG already notes that the Nuclear Decommissioning Authority rejected the idea of designating the Hunterston ILW store as a Regional Store for Central and South West Scotland. This was because of strong local opposition. (Please see attached Fairlie CC Response to NDA Consultation on Strategy for HAW Oct 2012.) The SSG's main concern is that if ILW is transferred from Torness and/or other EDF sites to Hunterston for consolidation into a single package with Hunterston ILW then it will no longer be possible to identify the origin of the consolidated waste. In other words the package could no longer be classified as Hunterston "B" Waste. The ILW store, after it has been filled with the currently forecast ILW from "A" station, will only have the capacity to store a further 900 packages (approx.). The SSG is keen that priority be given to any additional A station waste which could arise if decommissioning plans change and thereafter to B station ILW.	The variation does not allow the transfer of ILW between EDF stations. Disposals of ILW from the site are restricted to specified destinations. Hunterston A is not one of the specified destinations. See Sections 3.2 and 3.3.
	ILW Transfers: The SSG is concerned that these volumes of Hunterston B ILW could of greater volume. The consultation document gives no indication of the management strategy proposed for this waste, nor is the radioactive content given. It is a matter of some concern that these categories of waste do not match those given to the NDA Radioactive Waste Inventory. The volumes of waste at Torness described as "*not currently disposable*" are smaller but include both LLW and ILW. Again it is not possible to tell from the information given what the management strategy is for each category of waste, what the	SEPA requested further information from EDF and their response has been included in Appendices 3 and 4.

	radioactive content is or which of these wastes may be transferred to Hunterston, nor is it possible to match these waste categories with those given in the Radioactive Waste Inventory. In other words, it is impossible to ascertain from these applications which waste categories of what level of radioactivity and volumes will be sent for incineration, which for recycling and which may be transferred from or to Hunterston.	
	All in all, it is the SSG's view that this Application and the consultation document represent an inadequate attempt to provide the public with the information required to understand what exactly is being proposed. It seems that EDF Energy is seeking the flexibility to do whatever it wants without proper consultation with local residents and local government. This is clearly unacceptable, so the application should be rejected.	Comments noted

APPENDIX 2: PUBLIC CONSULTEE RESPONSES

The following table summarises the responses received from the second stage consultation with the public for both Hunterston B and Torness Power Stations.

Where there are numbered comments in the table these comments were made in direct response to questions asked by SEPA in the consultation document. These questions have been reproduced below.

1. Do you have any comments on the proposed changes to the Authorisation for disposal of Low Level Wastes from Hunterston B and Torness, in particular the removal of specified destinations?

2. Do you have any comments on the proposed changes to the Authorisation for the disposal of higher activity radioactive wastes from Hunterston B and Torness?

3. Do you have any comments on the proposed changes to remove the limits and physical/chemical descriptors from the radioactive waste disposed of by transfer from the Authorisation for Hunterston B and Torness?

4. Do you have any comments on the proposed changes to the Authorisation for the acceptance of radioactive wastes at Hunterston B and Torness from other EDF Energy stations?

5. Do you have any comments on the proposal to change the name appearing on the front page of the Authorisation for Hunterston B or Torness?

6. Do you have any comments on the proposed changes to the Authorisation, in particular the importation of standard conditions from the SEPA template for nuclear Authorisations?

Responder's Name	**Comments**	**SEPA Response**
Northamptonshire County Council	1. Specified destinations should continue to be named. Furthermore they should only be named if, in line with UK Policy for the Long Term Management of Solid Low Level Radioactive Waste in the United Kingdom (March 2007) (para 22, 26-27), there has been early, transparent and iterative engagement with communities in the vicinity of disposal sites during the preparation of the nuclear site waste management plans for both Hunterston B and Torness.	The removal of specified wastes/destination for LLW accords with UK Policy and SEPA guidance. See Section 3.1.
Nuclear Free Local Authorities (NFLA)	This application, if approved, seems likely to lead to further incineration and recycling of LLW.	The removal of specified wastes/destination for LLW accords with UK

	NFLA does not support this, believing it to be a breach of the "*concentrate and contain rather than dilute and disperse principle*".	Policy and SEPA guidance. See Section 3.1.
	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.	The proposals for interim storage, loading of containers and onward transfer do not relate to ILW and therefore do not run contrary to Scotland's HAW Policy. See Sections 3.2 and 3.3.
	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.	The proposals for interim storage, loading of containers and onward transfer do not relate to ILW. See Section 3.3.
	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.	The variation does not allow the transfer of ILW between EDF stations. Disposals of ILW from the site are restricted to specified destinations. Hunterston A is not one of the specified destinations. See Sections 3.2 and 3.3.
	Scottish Policy on Low Level 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. This document introduced the idea of the waste management hierarchy for low level waste. Although, at the top of the hierarchy, the idea of	Comments noted

	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.	
	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. 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. 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 variations specify the types of ILW and the disposal destinations that are allowed to be disposed of in accordance with the authorisations - see Section 3.2.
	The Application in Detail: However, in the NFLA's view, the SEPA consultation documents give no idea of the activity of the additional waste to be transferred or disposed of should this EDF application be successful and granted by SEPA. The NFLA notes that the only published information given in the consultation indicates that, particularly in the case of	SEPA requested further information from EDF and their response has been included in Appendices 3 and 4.

	Hunterston, the volumes are quite high. Nor is it possible for the NFLA to tell from the information given what the proposed management strategy is for each category of waste mentioned. Nor again 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). In summary, NFLA cannot tell from the EDF 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. In the NFLA's view this is unacceptable. EDF should be asked to go back and redraft its application accordingly. SEPA should insist upon this.	
	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.	Comments noted
	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.	The proposals for temporary storage do not relate to ILW and therefore do not run contrary to Scotland's HAW Policy. Transport is outwith SEPA's remit - see Section 4.9.
Copeland Borough Council	The Council has previously **objected** to similar consultations run by SEPA into the disposal of Low Level Waste (LLW) from Chapel Cross and Hunterston A 'to any person that is lawfully entitled to accept and treat or dispose of	The removal of specified wastes/destination for LLW accords with UK Policy and SEPA guidance. See Section 3.1.

	that waste' as stipulated in section 4.2.1. Consent was granted notwithstanding this Council's concerns and objections. The Council previously raised issue over the approach to the management and disposal which is now advocated – where the imprecision of the location results in the inability to provide adequate consultation with key stakeholders in contradiction of UK policy. This concern is duplicated in the current application. The proposed approach conflicts with the 'Policy for the Long term Management of Solid Low level Waste in the UK' which clearly advocates the integration of waste management plans, which must be developed with appropriate stakeholder engagement which includes the Local Authorities. The Council is dissatisfied with the level of consultation undertaken because it fails to provide for the stakeholder engagement required by national policy and do not agree that the proposed changes should be implemented until meaningful stakeholder engagement is undertaken. English and Welsh local authorities who are potential recipients of radioactive waste from Hunterston B or Torness are not listed as specific consultees which the Council considers is a flaw in the current consultation process.	
Nuclear Legacy Advisory Forum (NuLeAF)	English and Welsh local authorities which are potential recipients of radioactive waste from Hunterston B or Torness include Copeland Borough Council, Allerdale Borough Council, Cumbria County Council, Lancashire County Council and We note that they are not listed in the document as specific consultees. We believe this is a Northamptonshire County Council. Weakness in the current consultation process in Scotland as it applies to radioactive substances with potential cross border impacts. Councils and communities that	The impacts on the environment and the local community that are associated with the management of the waste at the recipient facility should be addressed through the pollution control and planning regimes applicable at that site. See Section 3.1. The determination of BPM, which includes transport considerations,

	host LLW disposal facilities have expressed concern about the disposal of such wastes, and in particular about the lack of notification or consultation regarding waste movements. This lack of consultation goes against the stated aims of the UK Strategy for the Management of Solid LLW from the Nuclear Industry (2010). More widely, our view is that on or near site disposal options for LLW waste from Hunterston B and Torness should be fully explored. Any decision to dispose of waste outside Scotland must have a clear justification, taking on board environmental impacts (including transport) and the views of all communities affected.	has been, and continues to be, a condition of the authorisation by requiring EDF to ensure that the disposal route represents BPM.
Katy Clark, MP	Opposed the application by EDF to vary their authorisation for Hunterston B in relation to the disposal of radioactive waste. Firstly, I believe there are serious safety concerns connected with the idea of transporting ILW. In addition there is no information provided by EDF which outlines the mode and frequency of the transportation. I would point out that the volume of heavy vehicular traffic on the local road network is already a major concern for many local people and there are various local campaigns relating to the trunk road network in and around Hunterston B to improve road safety and mitigate the effects of heavy vehicular movements on the towns and villages nearby. Allowing EDF to transport ILW to and from Hunterston B by road will only exacerbate the current problems.	Transport is outside of SEPA's remit - see Section 4.9.
	Secondly, I firmly believe that the safest way to store radioactive waste is by storing it near source. I am opposed to the idea of Hunterston B being used to store waste from other stations and the lack of detail from EDF on the	SEPA requested further information from EDF and their response has been included in Appendices 3 and 4.

	levels of waste being transported to and from the site, the duration of the storage, the safety measures that will be put in place to manage the storage or indeed even on the source of the waste is very concerning.	
	Finally, I just want to make a point about the consultation. I am obviously not privy to the level of response that SEPA have received to this consultation but I am concerned that many local people may not be aware of the application and therefore have been unable to state their opinion. As the MP representing the constituency of North Ayrshire and Arran I can advise you that I have been approached by constituents about the application and they have raised concerns with me that others in their community seem oblivious to it. I do acknowledge that other elected representatives have stated a view on the application publicly and the local paper has covered the story but on such a serious issue as the storage and transportation of radioactive waste I would have found it more satisfying had SEPA organised greater publicity of the consultation.	The consultation was advertised in both local and national newspapers and placed on the SEPA website in accordance with SEPA practice. The local SSG/LLC, which includes representatives of the local communities, was also specifically consulted on the applications. See Section 2.2
Largs Community Council	The Council **OBJECT** to this Application. There is a simple issue that; the public do not believe that transporting any radioactive waste (ILW) or (LLW) is safe. LLW has been transferred from Torness to Drigg or Sellafield. Why is LLW therefore being temporarily transferred to Hunterston? Is it the case that the Drigg site cannot immediately receive it? The transportation of nuclear waste is always a risk, so the more you move- the greater the danger. How many transport movements will be involved? Largs is a tourist town and for many months of the year there are changes to traffic volume,	Transport is outside of SEPA's remit - see Section 4.9. EDF has set out its reasons for requesting the change in their applications. SEPA requested further information from EDF and their response has been included in Appendices 3 and 4.

	travel speeds and now the increased danger of additional hazardous cargoes on our roads in the Central belt and North Ayrshire. Largs Community Council requires clarity as to WHY there is a need to move waste from Torness to Hunterston when it has not been deemed necessary until now. What has changed? Is there a problem which EDF Energy is trying to solve? We have no knowledge of the estimated number of journeys, types of lorries, time of day and whether they are carrying LLW or ILW or indeed both.	
West Kilbride Community Council	The transfer of Low Level Waste between Torness and Hunterston is acceptable as there is a recognised disposal route available at Drigg in Cumbria. However, the transfer of Low Level Waste from other sites outwith Scotland for consolidation is unacceptable. This increases the risk factor in the movement of radioactive waste around the United Kingdom. Transportation of ILW waste (Contaminated oil are classed as ILW) from Torness or any other EDF site to Hunterston would be disadvantageous to the population within Central Scotland. The movement of Higher Activity Waste is currently only done by the NDA Transport subsidiary. This would also involve the movement by rail through Edinburgh and Glasgow.	Transport is outside of SEPA's remit - see Section 4.9.
	Our main concern and objection is to the proposal for the transfer of Higher Activity Waste (ILW) from Torness and or other EDF sites to Hunterston for Consolidation. This would destroy the source identity of the consolidated waste which then would be re-classified as Hunterston "B" Waste. The Scottish Government as stated in their Policy document on Higher Activity Waste have implemented "Near Site Near Surface Storage of Higher Activity Waste (ILW)" Transfer from Torness to	The proposals for interim storage, loading of containers and onward transfer do not relate to ILW and therefore do not run contrary to Scotland's HAW Policy. See Sections 3.2 and 3.3.

	Hunterston of from other EDF Sites does not comply with this adopted government policy, and as such should be rejected. The transportation of waste for further treatment requires that the originating country/site accept the return of the higher level waste contaminates resulting from the treatment of the original material, so there would still be a requirement of a storage facility on site.	
	The NDA constructed ILW store at Hunterston "A" was initially designed to hold only "A" station ILW waste and as such only has planning permission for that purpose. It has been proposed that Hunterston "B" (EDF) ILW waste could be accommodated within the facility. This was viewed locally as a sensible option by both the NDA and the local population as it conformed to the reduction in transfer of ILW waste from the site. To this end Hunterston "A" reconfigured the stacking within the Storage Facility so it could take a further 800/950 packages of waste. This however on the figures included in the application would not accommodate the expected volume to be generated by Hunterston "B" let alone waste from other EDF sites, or consolidated waste. The North Ayrshire Council Local Development Plan approved and adopted by both Scottish Government and North Ayrshire Council in May 2014 states "Development for the storage of ILW will be restricted to storage of material accumulated through A and B only". EDF/NDA have as yet not applied for an amendment to the existing Planning Approval for the Hunterston "A" waste store to accept for long term storage Intermediate Level Waste from Hunterston "B" or any other EDF site. The NDA in its policy document on storage of waste in	The variations specify the types of ILW and the disposal destinations that are allowed to be disposed of in accordance with the authorisations. The destinations do not include the Hunterston A ILW Store. See Section 3.2.

	Central and South Scotland rejected after public consultation the idea of using Hunterston as a consolidated facility for the long term storage of ILW waste. The NDA have already rejected after local consultation the transportation of Contaminated Oils from Chapelcross to Hunterston for storage and have built a Storage Facility on the Chapelcross site, in line with the Scottish Government Policy.	
	It should be noted that when the Scottish Government announced the Higher Activity Waste Policy some years ago, the representatives of EDF were significantly concerned about the commercial financial repercussions of this Policy regarding Torness and Hunterston.	Comment noted
	The Community Council is also concerned that if the Application is approved there is no timescale to review/revoke as with a Planning decision, i.e. Five years from issue.	RSA93 requires SEPA to periodically review all authorisations relating to nuclear sites - see Section 4.8.
Fairlie Community Council	The current application seeks authorisation to transfer waste from other authorised sites to Hunterston B (or from Hunterston B to other sites). This runs counter to the principle supported locally that the radwaste generated on site (apart from High Level Waste which goes to Sellafield and Low Level Waste which goes to specified sites) should stay on site either in situ (as with remaining structures within weather envelope) or in remediated Compound 7 or as for the huge volume of ILW be packaged and safely stored and isolated from the environment. Part of the rationale behind this principle is that movement of radioactive waste has the potential to increase security, safety and health risks. Any increased movement of radioactive wastes from an already suitable, secure and safe licensed site needs to be fully justified and	Transport is outside of SEPA's remit - see Section 4.9. The determination of BPM, which includes transport considerations, has been, and continues to be, a condition of the authorisation by requiring EDF to ensure that the disposal route represents BPM.

	the risk/benefit facts fully investigated.	
	Low Level Waste- Transfers: To date, the majority of people have faith in the current authorisation whereby, SEPA as regulator specifies the sites, like LLWR in Cumbria, Hythe incinerator Southampton etc. Whilst there is less disquiet locally about LLW, and whilst FCC can see the economic benefit for EDF Energy, without more information, it is difficult to perceive any benefits for communities that the LLW will travel through. In fact, from a security and safety perspective there is no obvious benefit. Without a lot more information and consultation about EDF Energy's Strategic Plan, the Fairlie Community Council is of the opinion that, with regard to LLW then the current application should be rejected.	The removal of specified wastes/destination for LLW accords with UK Policy and SEPA guidance. See Section 3.1.
	Low Level Waste - Interim Storage: Fairlie Community Council would request more information about what exactly is meant by "Interim Storage". It is not enough to say it would not be long term. Basically, for the community to consider that this variation in authorisation is a safer option that the status quo then EDF Energy should have furnished us with more detail and information within the Application. FCC would request that the application be rejected and EDF Energy Ltd, if minded, submit a more detailed application so informed, proper consideration and response can be given. It is important, that any change to authorisation be a better option safety-wise and not merely the option that is more economic for EDF Energy Nuclear Generation Ltd.	SEPA requested further information from EDF and their response has been included in Appendices 3 and 4. The variations have specified that waste accepted on to either station for the purposes of interim storage, loading of containers and onward transfer must be dispose of within 6 months from the date of their arrival. See Section 3.3.
	Intermediate Level Waste: The Scottish Government HAW Policy states that HAW (ILW) should be	The proposals for interim storage, loading of containers and onward

	managed in near surface facilities, which "**should be located as near to the site where the waste is produced as possible**". This means that it should be managed as near to the site as is practicable so that the necessity for transport of radioactive waste (ILW) over long distances is minimal. The Scottish Government Consultation Document (para 6.2.2) states that the Policy does not preclude HAW/ILW leaving the site where it arose for treatment, where that treatment represent BPM. However, EDF Energy's Application is clear "**there will be no processing or treatment of waste"** that has been transferred to Torness or Hunterston from another site. On that basis, the Application to allow the transfer of ILW between Torness and Hunterston should be rejected.	transfer do not relate to ILW. See Sections 3.2 and 3.3.
	Hunterston ILW Store: Fairlie Community Council opposed the NDA plan to designate Hunterston A ILW Store as the Regional Store for Central and Southern Scotland because there was strong local opposition to radwaste coming to Hunterston from anywhere else. The feeling generally was that ILW produced on site would be safer staying on site in the purpose built facility and that any radwaste from outwith was not an option to even consider. If this application is granted and EDF E is allowed to transfer ILW and consolidate it with Hunterston B ILW then it would be impossible to identify origin of the waste. Capacity of the store is finite and FCC would prefer that the priority be given to ILW generated on site (A and B). It is aware that decommissioning plans change and if A station should become a site that goes for accelerated decommissioning then all space within the Store will be needed.	The variations specify the types of ILW and the disposal destinations that are allowed to be disposed of in accordance with the authorisations. The destinations do not include the Hunterston A ILW Store. See Section 3.2.

	ILW Transfers: It is impossible to ascertain from the Application which waste categories of what level of radioactivity and volumes will be sent for incineration, which for recycling and which may be transferred to or from Hunterston. This is unsatisfactory. It is Fairlie Community Council's view that this Application and the Consultation Document fall short of providing the public with the information required to understand exactly what is being proposed by EDF Energy. It seems that EDF Energy is seeking the flexibility to do whatever it likes without proper consultation with the local population. Fairlie Community Council considers this unacceptable and therefore requests that the Application be rejected.	SEPA requested further information from EDF and their response has been included in Appendices 3 and 4.
	(5) Fairlie Community Council has no comment on the proposal to change the name appearing on the front page of the Authorisation for Hunterston or Torness to EDF Energy Nuclear Generation Ltd.	Comments noted
	(6) As to the question relating to importation of standard conditions from the SEPA template for nuclear Authorisations FCC is still considering this and hopes to add to this response before 3rd October deadline.	No further response received.
West Kilbride Civic Society	On behalf of the West Kilbride Civic Society (OSCR register NoSCO11125) I should like to raise our objection to the application by EDF Energy Nuclear Generation Ltd for changes to the authorisation covering the disposal of radioactive wastes from Hunterston B and Torness power stations. We believe this application has been made for purely financial reasons and does not serve the interests of the local population as it increases the risk factors of transportation of radioactive waste within Central Scotland. We are in total agreement with our Community	Transport is outside of SEPA's remit - see Section 4.9.

	Council here in West Kilbride who have sent detailed comments re this application and understand that transfer of such waste does not comply with the Scottish Government's policy on these matters.	
Ayrshire Branch of the Scottish Green Party	We as branch fully condemn any changes to the authorisation at this stage. We believe communities and people should be put first not the interests of a company looking to cut costs and reduce spending. To allow greater freedom within an industry that is so dangerous is morally wrong and this application must be blocked and rejected fully.	Comment noted
	1. The Ayrshire Branch of the Scottish Green Party fully condemn any change made to the existing authorisation for disposal of low level waste from Hunterston B and Torness. The removal of specified destinations would give EDF free movement of nuclear waste in and out of the UK. This free movement will see a greater abundance and frequency of nuclear waste being transported upon our main roads and through local communities. The free movement that would be made available if changes were approved would see the local communities across the central belt of Scotland put at risk of nuclear disaster every time a new destination is chosen to store the waste. To consider EDF to have the interests of the people of Scotland at its' core when discussing energy production and its' nasty by -products is tantamount to a joke. EDF works for the interest of itself and not of the wider community. To trust EDF with a free pass on movement of nuclear waste is a risk that the people of Scotland shouldn't have to take and the Ayrshire branch of the Scottish Green Party calls upon SEPA to reject any changes.	The removal of specified wastes/destination for LLW accords with UK Policy and SEPA guidance. See Section 3.1. Transfers outside of the UK fall within the Transfrontier Shipment Regulations and treaties between the UK and individual countries - see Sections 3.1.2 and 3.2.2. Transport is outside of SEPA's remit - see Section 4.9.

	2. The Ayrshire Branch of the Scottish Green Party fully condemn any change made to the existing authorisation for disposal of higher activity radioactive wastes from Hunterston B and Torness. Again the application to change from the status quo is a risky option and needlessly puts the people and the communities of Scotland's central belt at risk of nuclear disaster. SEPA should not consider relaxing the terms in which energy giants EDF operate their systems but instead impose extremely strict regulations and safe guards to protect the people and communities of Scotland from the uncaring and purely business focused approach of firms like EDF.	The variations specify the types of ILW and the disposal destinations that are allowed to be disposed of in accordance with the authorisations. See Section 3.2.
	3. The Ayrshire Branch of the Scottish Green Party fully condemn any change to remove the limits and physical/ chemical descriptors from the radioactive waste disposed of by transfer from the Authorisation for Hunterston B and Torness. There should be no relaxation to limits, limits should always move lower not higher. If limits are given the opportunity to be bypassed it leads to a slippery slope of limit alteration. In the context of EDF's application they seek to directly remove the limits completely again this would be considered to be putting communities and people of Scotland at unnecessary risk and considering business over people.	SEPA does not consider it appropriate or necessary to specify limits or the physical/chemical descriptors of the waste that are disposed of by transfer to another facility. See Section 3.1 and 3.2.
	4. It must come as no surprise that the Green party would be at odds with EDF owing to their imposing use of nuclear power in their energy production monopoly. To allow radioactive waste to be transported from EDF energy stations across the UK or beyond again puts local people and communities at unnecessary risk. The waste would be transported by road to Hunterston B and Torness	The storage of the waste is a matter for ONR who require that all such transfers have acceptable safety justification (see ONR response to initial consultation). Transport is outwith SEPA's remit - see Section 4.9.

	through large cities and quiet towns, to bring substances that close to people's lives that is so dangerous is morally irrepressible. EDF should not be given approval to store radioactive waste from other facilities at Hunterston B and Torness, the radioactive waste produced by both facilities is more than should be in Scotland, let big business not put people at risk any longer.	
	5. No.	Comments noted
	6. No.	Comments noted
Public- Individuals		
Bryan Norris	1. I oppose this change because it will mean that SEPA will no longer be able to have a view on how the waste is handled. It is only possible for SEPA to discharge its duty if it knows where the waste is to be taken, and are thus able to make an informed opinion of the suitability of the site. It is also unreasonable for the UK to seek to move waste of any form to another country, as the handling of that waste is then out of UK control SEPA must insist that waste is only sent to sites that are known to them, and are thus open to inspection, and are within the UK.	The removal of specified wastes/destination for LLW accords with UK Policy and SEPA guidance. See Section 3.1. Transfers outwith the UK fall within the Transfrontier Shipment Regulations and treaties between the UK and individual countries - see Sections 3.1.2 and 3.2.2.
	2. I oppose this on the same grounds as above. SEPA will not be able to carry its public duty to ensure that waste is properly handled unless the actual sites are named and open for inspection. They must also be within the UK. We also object to the movement of ILW and HLW between EDF sites as this presents a risk to the environment and the public, serves no waste disposal purpose and has an adverse environmental impact due to the increased transport movement. Waste should be retained on site and only moved direct to a waste disposal site.	The variations specify the types of ILW and the disposal destinations that are allowed to be disposed of in accordance with the authorisations. See Section 3.2.

	3. This is an unreasonable request and I oppose it. It is not possible to assess environmental impact unless it is known what type of material is to be stored or transported, and the maximum amount that could be involved.	SEPA does not consider it appropriate or necessary to specify limits or the physical/ chemical descriptors of the waste that are disposed of by transfer to another facility. See Section 3.1.
	4. This is the most damaging request, and we are surprised that SEPA do not object to this. Waste should only make a single movement, from source to disposal site. All other movements represent an unnecessary risk. Significantly there is no limit to the number of movements that can take place between sites, which in the extreme could mean the same waste being 'ping-ponged' between the two sites without limit.	The conditions of the variations require EDF to demonstrate that all disposals represent BPM for that particular waste type. See Section 3.3.
	5. No comment	Comment noted
	6. Support	Comment noted
John Riddell	1. No comment	Comment noted
	2. I would support this variation. In doing so I understand that the variation relates only to ILW that is suitable for a form of treatment that will result in it being classified as low level waste and that the variation does not relate to ILW that cannot be so treated. I am of the opinion that it is of benefit to the community living around Hunterston B for as much as possible of the ILW created by the operation of the site to be removed from the site, taken to destinations outside of Scotland, and subsequently treated to allow classification as low level waste. I understand that the movement of radioactive waste in Scotland is authorised at present by the ONR and my support for the variation requested under 4.2.2 is conditional on the ONR being satisfied with regard to both the transport contractor and the container(s) to be used for transport.	Comment noted
	3. No comment	Comment noted

	4. I note that the application refers to "radioactive waste" and as such it is reasonable to conclude that the application relates to all forms of ILW and not only to that able to be treated to allow classification as low level waste. I also note that the requested variation refers to "other" EDF power station and is therefore not specific to Torness, the only other EDF power station in Scotland. While the intention of the proposed change may well be to allow the transfer to Hunterston B from Torness (and vice versa) only of ILW that can be treated to allow classification as low level waste that is not made clear in the application. I would therefore object to the variation proposed under 4.2.4 in that it is too broad ranging and would as worded allow all levels of radioactive waste to be transferred to Hunterston B from any and indeed all of the other EDF power stations in the UK. As the proposed variation is worded there could be many movements of all forms of ILW to Hunterston B from throughout the UK and a considerable increase, albeit potentially temporary, in the volume of ILW stored at Hunterston B. That in my opinion is not acceptable. Should EDF, or SEPA, wish to amend the variation sought under 4.2.4 by replacing the words "radioactive waste" by "ILW suitable for treatment and subsequent classification as low level waste" and by replacing the words "other EDF Energy power stations" by "EDF's Torness power station" then I would support the variation. If either the proposed or the suggested amended variation of 4.2.4 is agreed by SEPA then my support would again be conditional on the ONR being satisfied with regard to both the transport contractor and the container(s) to be used for transport.	The proposals for temporary storage do not relate to ILW. The variations specify the types of ILW and the disposal destinations that are allowed to be disposed of in accordance with the authorisations. See Section 3.2.
	5. No comment	Comment noted
	6. No comment	Comment noted
Linda Grainey	I absolutely agree with both the moral and pragmatic (we can't afford it)	Transport is outside of SEPA's remit - see

	arguments put forward by the Scottish Parliament in our recent Referendum, in relation to "TRIDENT" and am left little short of "staggered" that such an initiative, to transport nuclear waste across Scotland to Hunterston and in particular, through residential areas, is even "on the table" for consideration! It is simply unacceptable to subject citizens to the very obvious risks involved in transporting nuclear waste through residential areas. There should be immediate legislation to prevent this happening. These operations should not be in populated areas at all. We seem stuck with them for a few more years until affordable alternatives are possible. With regard to the transport of nuclear waste- as little as possible! To even request information about frequency and mode is an irrelevancy- WE DON'T WANT IT AT ALL! As for needing to be satisfied with security and safety- this is an "unknown". No one can or should be satisfied with any "claims" made.	Section 4.9.
Richard and Celia Walker	Transferring nuclear waste to Hunterston: It seems to us totally unsatisfactory and potentially unsafe to transport nuclear waste by road through residential areas. We believe that such waste should be disposed of at the place it is produced. If it must be transported than it should go by rail or preferably by sea. Whatever safety conditions are put in place, transport by road is too uncertain and dangerous for this kind of cargo.	Transport is outside of SEPA's remit - see Section 4.9.
Jim Johnston	1. SEPA must continue to require specific destinations for all radioactive waste removed from Hunterston B and Torness. Types of radionuclides must be listed as well as activity levels. Furthermore, it needs to be clarified if LLW is 4 gigabecquerels per tonne of alpha AND 12 gigabecquerels per tonne of beta/gamma or if it is OR. This is 4 million radioactive disintegrations per second of alpha emitters like plutonium and americium, which are highly dangerous upon ingestion or	The removal of specified wastes/destination for LLW accords with UK Policy and SEPA guidance. See Section 3.1. The definition of LLW is taken from UK Policy.

	inhalation and should never be let lose in the environment. There is nothing low level about this. And, the definition is unclear, constituting a probable legal loophole.	
	2. SEPA must continue to require specification of waste type and destination for ILW, as well as keeping the activity limits (which need to be made clear). This is required for Transfrontier Shipment anyway and it is SEPA's job. Why have you stated that "EDF have applied to allow the disposal of higher active radioactive wastes (HAW), including Intermediate Level Waste (ILW)," whereas EDF has requested "only" Intermediate Level Waste?! Does this mean that you are allowing both the import and the export of used fuel or whatever is higher than ILW?	The variations specify the types of ILW and the disposal destinations that are allowed to be disposed of in accordance with the authorisations. See Section 3.2. Transfers outwith the UK fall within the Transfrontier Shipment Regulations and treaties between the UK and individual countries - see Sections 3.1.2 and 3.2.2.
	3. Limits and descriptions of type of activity of radionuclides must be required for safety reasons and are required for waste export documents anyway. Furthermore, it is your job to regulate and monitor.	SEPA does not consider it appropriate or necessary to specify limits or the physical/chemical descriptors of the waste that are disposed of by transfer to another facility. See Section 3.1.
	4. The EDF sites from which the waste may be imported must be stated. Currently they are not. The current consultation allows import of radioactive waste from any EDF Energy station in the UK. Since EDF Energy is a fully owned subsidiary of EDF, it may even allow import from France. If this involves movement of waste only between Hunterston B and Torness, then it should be so stated. Currently it is not. Type of radioactive waste to be imported to Hunterston B and Torness is also not stated in the documentation. As written, the proposal is for making Scotland into a radioactive import-export hub. It is dangerous, unethical, and unfair, for those in Scotland and abroad. It is unacceptable that Scotland import nuclear waste from elsewhere in the UK, and possibly even France, to	SEPA requested further information from EDF and their response has been included in Appendices 3 and 4 4. The variations have specified that only waste from other Scottish Site can be disposed of.

	either put in Scottish landfills; send to Dounreay; or to re-export.	
	5. Here is the only quasi honest section of this consultation. EDF is 85% French government owned. It is not British Energy. So, yes, but make it more clear and call it French State Owned Energy or the translation of EDF - Electricity of France. Calling it EDF remains deceptive and misleading, though not as deceptive as British Energy.	EDF Energy Nuclear Generation Limited is the name that is registered in Companies House. See Section 1.5.
	6. The definition of Low Level Waste is unclear. I find no definition of Higher Level Waste. Your job is to protect the environment, not to save the French government money. Why should anyone outside of France care about the expenditures incurred by the French government?: "In determining whether particular means are the 'best practicable' for the purposes of this Authorisation, the Authorisation Holder shall not be required to incur expenditure whether in money, time or trouble which is, or is likely to be, grossly disproportionate to the benefits to be derived from, or likely to be derived from, or the efficacy of, or likely efficacy of, employing them, the benefits or results produced being, or likely to be, insignificant in relation to the expenditure. RS-S-007 Version8 Page 6 of 30". In "FURTHER CONDITIONS AND LIMITATIONS RELATING TO THE DISPOSAL OF RADIOACTIVE WASTE BY TRANSFER TO A PERSON OUTWITH THE UNITED KINGDOM 8.1", first you say that the radioactive waste arisings should be returned. Then you say that "where it has been determined that waste arisings from overseas does not need to be returned to the UK." Who determines that? Do you really truly think that anyone else wants or should have UK nuclear waste in their water, air and land? Do you think that anyone is asked? They are not. Also, in Appendix 8 it is stated, "5.5.1 Other than as specifically permitted or limited by any condition of this	Both LLW and BPM are defined in the variations. The determination of whether radioactive waste imported into another country needs to be repatriated is a matter for that country and not the UK. See Sections 3.1.2 and 3.2.2. Conditions in the variations ensure that leakages are not authorised and must be cleaned up in accordance with BPM. Limits relating to discharges to the environment have not been changed. The authorisations have required, and continue to require, non-compliance events to be reported to SEPA forthwith.

	authorisation, discharges shall not have a significant adverse impact on, or cause pollution of, the water environment." RS-S-007 Version 8, Page 19 of 30. Why should having an adverse impact be allowed? Why should any leakage be allowed? Also, there must be clear limits stated for alpha, beta and gamma radionuclides. Notification of leakage of radionuclides into the environment should be prompt and not delayed. Overall, Appendix 8 is appalling.	
	Furthermore, I am shocked and appalled by this consultation, which I only found by accident. If SEPA were doing its job, then SEPA would tell EDF an emphatic "no" to all of their requests, excepting the name change. There was no need for this consultation, if SEPA were committed to either Scotland or to the environment.	The consultation process is set out in Section 2.2.
Patricia Anslow	3. Surely if EDF want to consolidate a load made of Low level waste from both stations this information is necessary for the receiving person's waste acceptance criteria?	SEPA does not consider it appropriate or necessary to specify limits or the physical/ chemical descriptors of the waste that are disposed of by transfer to another facility. See Section 3.3.
	4. I am concerned about the idea of transferring L.L.W. between Hunterston B and Torness. Both stations have good routes avoiding congested areas to Drigg. However the journey between the stations involves rail and road transport through densely populated areas with possible risks. The possibility of transferring from other U.K. sites is also unacceptable for the same reasons. Is this worth it on economic grounds as the stations should have enough space to make up their own load as they do at present.	Only LLW is authorised to be received from the other Scottish station (see Section 3.3) Transport is outside of SEPA's remit - see Section 4.9.
	In the case of I.L.W. transfer from other sites to Hunterston for consolidation I am very much against this not only because of the	The proposals for temporary storage do not relate to ILW. The variations specify the

	transportation problems but also as this would be reclassified as Hunterston B waste. The analysis and recording of the waste prior to being accepted on site would have to be verified Particularly oil waste. I know that I.L.W. facilities were built for A station decommissioning. But my fear is that until disposal routes are found this could lead to a "pass the parcel" situation meaning that Hunterston could be a dumping ground.	types of ILW and the disposal destinations that are allowed to be disposed of in accordance with the authorisations. See Sections 3.2 and 3.3.
Eric Goodyer & Sue Duerdoth	1. We oppose this change because it will mean that SEPA will no longer be able to have a view on how the waste is handled. It is only possible for SEPA to discharge its duty if it knows where the waste is to be taken, and are thus able to make an informed opinion of the suitability of the site. It is also unreasonable for the UK to seek to move waste of any form to another country, as the handling of that waste is then out of UK control. SEPA must insist that waste is only sent to sites that are known to them, and are thus open to inspection, and are within the UK.	The removal of specified wastes/destinations for LLW accords with UK Policy and SEPA guidance. See Section 3.1.
	2. We oppose this on the same grounds as above. SEPA will not be able to carry out its public duty to ensure that waste is properly handled unless the actual sites are named and open for inspection. They must also be within the UK. We also object to the movement of ILW and HLW between EDF sites as this presents a risk to the environment and the public, serves no waste disposal purpose and has an adverse environmental impact sue to the increased transport movement. Waste should be retained on site and only moved direct to a waste disposal site.	The variation does not allow the transfer of ILW between EDF stations. Disposals of ILW from the site are restricted to specified destinations. See Section 3.2.
	3. This is an unreasonable request and we oppose it. It is not possible to assess environmental impact unless it is known what type of material is to be stored or transported, and the maximum amount that could be involved.	The removal of specified radionuclide limits on the disposal of LLW accords with UK Policy and SEPA guidance. For ILW, specified waste types and destinations have been retained. See Sections

		3.1 and 3.2.
	4. This is the most damaging request, and we are surprised that SEPA do not object to this. Waste should only make a single movement, from source to disposal site. All other movements represent an unnecessary risk. Significantly there is no limit to the number of movements that can take place between sites, which in the extreme could mean the same waste being "ping-ponged" between the two sites without limit.	The variations have specified that waste accepted on to either station for the purposes of interim storage, loading of containers and onward transfer must be disposed of within 6 months from the date of their arrival. The authorisations require that each disposal must represent BPM. Waste ping-ponging between the two stations would not be BPM.
	5. No comment	Comment noted
	6. Support	Comment noted