



Committee on Radioactive Waste Management (CoRWM)

**Impact on Radioactive Waste Management
from the UK's Withdrawal from the EU and
the Euratom Treaty**

Report

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Background to this Advice

1. The UK Government and the Governments of Scotland and Wales have asked CoRWM to provide advice on the potential impact of the UK's withdrawal from the EU and the Euratom Treaty on the management of radioactive waste in the UK.
2. CoRWM was asked specifically to identify if there are likely to be gaps in the current legal and regulatory coverage of radioactive waste management post Brexit. CoRWM was also asked that in the event of gaps being identified, what new legislation or regulatory arrangements would be required to ensure that the scope of the current regulatory controls is maintained or, where possible, improved.

CoRWM's Advice

3. As shown in the Table forming Annex 1, CoRWM has assessed the impact of the UK's withdrawal from the European Union and the Euratom Treaty on the management of spent fuel and the management of radioactive waste in the United Kingdom.
4. CoRWM has looked at the requirements placed on the UK's legislative and regulatory environment arising from the key European Union/Euratom Directives and regulations in the area of spent fuel and radioactive waste management.
5. It should be noted that there are cognate areas of EU law which may have an effect on radioactive waste management, for example environmental impact assessment, strategic environmental assessment, habitats and protected species, and the water framework directive. CoRWM has not sought to analyse these areas, as they are general issues, not specific to radioactive waste management.
6. Further, it should be noted that there will be other issues for the nuclear industry generally arising from Brexit, such as research, ownership of nuclear materials, supplies of fuel, safeguards, movement of persons, goods and capital, and wider international relations and agreements, which raise important issues of a more general nature, and which we have not attempted to analyse in this paper, but which we are happy to discuss further if that would be of help to the Governments. CoRWM was encouraged by the recent statement of the Minister recognising the importance of achieving continuity in the nuclear sector and, to that end, its intention to seek a close ongoing relationship with Euratom. Some of our comments may be of assistance in helping to identify important areas for that future relationship.
7. CoRWM notes that the UK, having signed and ratified the IAEA Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management, is a Contracting Party to this Convention and is therefore subject to its requirements and the associated international scrutiny.

8. CoRWM notes that the requirements of the Joint Convention and the supporting IAEA Safety Standards underlie the European Union requirements in the area of spent fuel and radioactive waste management, and that EU measures to a significant degree reflect those wider international requirements and standards.
9. In respect of radioactive waste and spent fuel management, CoRWM has not identified any major significant gaps between the current arrangements within the UK and those that will continue to be in place post Brexit.
10. CoRWM believes that in the context of the safe management of spent fuel and the safe management of radioactive waste, withdrawal from the European Union and the Euratom Treaty should have no major impact. The current arrangements that are in place within the UK are robust and provide a comprehensive legal framework for the protection of workers, the public and the Environment and are in compliance with the requirements of the IAEA Joint Convention.
11. CoRWM identified some areas requiring consideration by the UK Government, but none which appear to require fundamental change to primary or secondary legislation to ensure the delivery of an equivalent regime to that currently in operation in the UK. These are specifically in the areas of ongoing co-operation, such as research, notification, information-sharing, and transboundary movement of radioactive waste and spent fuel.
12. To address these issues, the UK Government, the Governments of Scotland and Wales, and the Northern Ireland Executive may wish to consider the following suggestions:
 - a) *Euratom Treaty*, Articles 4-7 – It needs to be identified the extent to which UK research projects are dependent on ongoing data from research in Euratom Member States, and how important such data is. It should be explored how the UK can continue to access such data and research under ongoing mutual arrangements with Euratom. The UK may have contributed financially or in kind to such programmes. It also needs to be identified whether there are UK based research programmes to which Euratom contributes funding, and if so whether and on what terms such funding will continue or if not, how it will be replaced.
 - b) *Euratom Treaty*, Article 12 &13 - For radioactive waste management in the future, it may be important for the UK to secure ongoing access to information from research programmes. The Government may wish to be satisfied about use of information to which UK has contributed and the status of existing patents and licences granted by Commission in relation to radioactive waste management that could impact on future UK activities.
 - c) *Euratom Treaty*, Article 24 – BEIS may wish to check if there is any information within this category affecting UK security interests which might continue to need protection.
 - d) *Euratom Treaty*, Articles 35 and 36 - Presumably the Commission will no longer have access for verification purposes in respect of environmental

monitoring and there will be no reporting obligation to the Commission. Accordingly there will be no oversight from a body outside the UK. The UK may wish to consider whether such oversight is desirable to provide confidence to the international community. If so it may be that voluntary arrangements could be made with the IAEA to provide this. The Government will need to consider to what extent it will continue to adhere to the Commission's recommendations on monitoring as representing international good practice, or whether there are other objective standards it will follow.

- e) *Euratom Treaty, Article 37* – The UK may wish to ensure that the UK national report to the Joint Convention Review Meetings cover these particular issues on notification of plans to dispose of radioactive waste.
- f) *Euratom Treaty, Article 37* – In the interests of good international relations, the Government may also wish to consider a new mechanism through which the UK can inform neighbouring countries of UK discharges and can continue to show that the UK complies with international best practice and expectations.
- g) *Euratom Treaty, Article 38* – The UK may wish to consider making sure that the environmental protection regulators have the necessary powers to define and enforce permissible levels of radioactivity in the air, water and soil.
- h) *Council Directive 2013/59/EURATOM – laying down safety standards for protection against the dangers arising from exposure to ionizing radiation, Article 76* - Government may wish to ensure that there are appropriate bilateral arrangements regarding points of contact between the UK regulators and their counterparts in the most appropriate neighbouring states.
- i) *Council Directive 2013/59/EURATOM – laying down safety standards for protection against the dangers arising from exposure to ionizing radiation, Article 99* – Government may wish to check that there is clarity in relation to which Department has responsibility for implementing the requirements of the IAEA Conventions on early notification and the Convention on assistance.
- j) *Council Directive 2013/59/EURATOM – laying down safety standards for protection against the dangers arising from exposure to ionizing radiation, Article 99* – Government may also wish to satisfy itself that the principal regulators, ONR and EA/NRW/SEPA understand their roles and responsibilities in this area.
- k) *Council Directive 2011/70/EURATOM Community Framework for the responsible and safe management of spent fuel and radioactive waste, Article 8* – Government may wish to reinforce CoRWM's responsibility to advise on R&D programmes.
- l) *Council Directive 2011/70/EURATOM Community Framework for the responsible and safe management of spent fuel and radioactive waste Article 13* – The importance of future notification on National Programmes will depend on what future arrangements come into place between the UK and

Euratom in terms of collaboration. The National Programme in any event constitutes a useful summary for the public and for other countries of the UK's policies and their implementation, and the Government is recommended to publish future updates to the National Programme.

- m) *Council Directive 2011/70/EURATOM Community Framework for the responsible and safe management of spent fuel and radioactive waste*, Article 14 - BEIS may wish to put international reviews on a more formal footing to ensure that the IAEA is invited to undertake a review of its nuclear safety and radioactive waste management regulatory framework.
- n) *Council Decision 87/600/Euratom on early exchange of information in the event of a radiological emergency*, Article 2 - BEIS may wish to consider if the current bilateral information exchange arrangements are sufficient and whether reporting to the IAEA will be sufficient to ensure all EU states are informed of an accident in the UK which could have consequences.
- o) *Regulation 93/1493/Euratom on shipments of radioactive substances between Member States* – Consideration will need to be given, in the context of ongoing arrangements between the UK and EU as to how shipments of radioactive substances will be regulated, in order to ensure as little disruption as possible to existing arrangements.
- p) *Directive 2006/117/Euratom on supervision and control of shipments of radioactive waste and spent fuel* – Consideration will need to be given, in the context of ongoing arrangements between the UK and EU, as to how shipments of radioactive waste and spent fuel will be regulated, in order to ensure as little disruption as possible to existing arrangements for shipments of waste to or through Euratom States.

Annex 1: Analysis of the Impact on Radioactive Waste Management from the UK's Withdrawal from the EU and the Euratom Treaty

Introduction

1. The UK Government and the Governments of Scotland and Wales, have asked CoRWM to provide advice on the potential impact of the UK's withdrawal from the EU and the Euratom Treaty on the management of radioactive waste in the UK.
2. CoRWM was asked to specifically identify if there are likely to be gaps in the current legal and regulatory coverage of radioactive waste management post Brexit. If gaps are identified, CoRWM has been asked to advise on what new legislation would be required to address these gaps so that the scope of the current regulatory controls is maintained or where possible improved.
3. This analysis only relates to low level radioactive waste (LLW), intermediate level radioactive waste (ILW) and high level heat generating radioactive waste (HLW). It does not address very low level waste (VLLW) that is sent to specific land-fill disposal sites managed by local authorities.

Current UK approach to the Regulation of Radioactive Waste Management

4. Radioactive waste in the UK is regulated by four principal regulators, namely: the Office of Nuclear Regulation (ONR), the Environment Agency EA, the Scottish Environment Protection Agency (SEPA) and Natural Resources Wales (NRW).
5. Radioactive waste is primarily a by-product of the nuclear industry, although some naturally occurring radioactive materials (NORMs) are produced in the oil and gas industries. The regulation of the management of NORMs is outside the scope of this analysis as it does not come within CoRWM's remit.

Production and Minimization of Radioactive Waste

6. The vast majority of radioactive waste is produced in the fission of uranium and plutonium in nuclear reactors for electricity production. Thus, although there is a legal requirement to minimise the production of radioactive waste, in the case of fission product generation this is not possible because the amount of fission products will depend upon the amount of electricity being generated.
7. In the case of "secondary waste" i.e. radioactive waste generated either from the activation of steels in nuclear reactors, or from spent fuel reprocessing or other fuel cycle activities, there is scope for minimisation and volume reduction. Radioactive wastes are also produced in research, medical applications and the defence nuclear programme.

8. For radioactive waste generated on nuclear licensed sites, the nuclear licensing system enforced by ONR requires licensees to have arrangements in place for minimising so far as is reasonably practicable the rate of production of radioactive waste and the total quantity of radioactive waste that is accumulated on the site.

Handling, Treatment and Storage of Radioactive Waste

9. The handling, treatment (conditioning) and storage of radioactive waste on nuclear licenses sites is regulated via conditions attached to a nuclear site granted by ONR under the Nuclear Installations Act 1965 (as Amended).

Disposal of Radioactive Waste

10. Authorisation for the disposal of radioactive waste, LLW, ILW or HLW comes under the control of the environmental regulators. For England, the regulatory authority is the Environment Agency. Authorisation of the disposal of radioactive waste is given under the Environmental Permitting regime. For Scotland, the authority on disposal of radioactive waste is SEPA. Authorisation in Scotland is under the Radioactive Substances Act 1993 In Wales, NRW regulates the disposal of radioactive waste. Authorisation in Wales is again via Environmental Permitting.

International Atomic Energy Agency

11. The UK has signed and ratified the IAEA Joint Convention on the Safety of Spent Fuel management and the Safety of Radioactive Waste Management. The means of complying with the obligations set out in this convention are given in the high level IAEA Safety Fundamentals and the IAEA Standards and related Guidance.

European Union / Euratom

12. The key EU legislation relating to radioactive waste management are:
 - The Euratom Treaty.
 - Council Directive 2011/70/EURATOM – Community Framework for the responsible and safe management of spent fuel and radioactive waste.
 - Council Directive 2014/87/EURATOM – amending Directive 2009/71/EURATOM.
 - Council Directive 2013/59/EURATOM – laying down safety standards for protection against the dangers arising from exposure to ionizing radiation.
 - Council Directive 2009/71/EURATOM – establishing a Community framework for the nuclear safety of Nuclear Installations.

- Council Decision 87/600/Euratom on early exchange of information in the event of a radiological emergency.
- Council Directive 89/618/Euratom on informing the public in the event of radiological emergencies.
- Regulation 93/1493/Euratom on shipments of radioactive substances between Member States.
- Directive 2006/117/Euratom on supervision and control of shipments of radioactive waste and spent fuel.

Annex 2: Comparison of EU and IAEA Requirements with Existing UK Legislation/Regulatory Approaches

EU Requirements Source*	Description	IAEA Equivalent Requirement	UK Equivalent Approach	Gap + Advice
Euratom Treaty				
Article 2	Sets out tasks of Community, which include: (a) promotion of research and dissemination of technical information; (b) establish standards to protect workers and the public; (c) facilitate investment in nuclear technologies; (e) safeguards to prevent diversion of nuclear material; (f) ownership of special fissile material; (g) creation of a common market in materials/equipment, free movement of capital, and freedom of employment for nuclear specialists; (h) establishment of relations with other countries and international organisations	Many of these tasks are paralleled by the functions of the IAEA under Article III of its statute: for example the encouragement and assistance of research; fostering the exchange of information; establishment and administration of safeguards; establishment and adoption of safety standards.	Discussed below in relation to individual tasks.	<p>Identification of gaps and implications are shown below for each article relevant to radioactive waste.</p> <p>The key areas where leaving Euratom will create gaps are in respect of the common market/free movement issues and the Community's role in establishing relations with third party states and international organisations.</p> <p>These issues are not unique to radioactive waste management but may impact on it in terms of skills, investment and international collaboration, but they clearly will need to be addressed in the interests of the UK nuclear industry.</p>

<p>Articles 4-7</p> <p>Promotion and facilitation of nuclear research in Member States; financial and other support for such research. These includes at Point VI of Annex I, research on the detection and measurement of harmful radiation, safety standards and radiation effects, which may be relevant to waste management.</p> <p>The Euratom Research and Training Programme includes waste management, concentrating on high-level and long-lived waste including spent fuel. Areas include geological disposal research, partitioning and transmutation, using data from underground storage, testing and research facilities</p>	<p>The IAEA has a Department of Technical Co-operation, which includes a Division covering Europe. Its Waste Technology Section seeks to assist Member States in establishing disposal programmes.</p>	<p>The UK has comprehensive research programmes for planning and commissioning nuclear research in this area, particularly through the Science and Technology Programme of RWM, including geological disposal. This in part utilises overseas data, for example from underground research laboratories.</p>	<p>It needs to be identified the extent to which UK research projects are dependent on ongoing data from research in Euratom Member States, and how important such data is.</p> <p>It should be explored how the UK can continue to access such data and research under ongoing mutual arrangements with Euratom. The UK may have contributed financially or in kind to such programmes.</p> <p>It also needs to be identified whether there are UK based research programmes to which Euratom contributes funding, and if so whether and on what terms such funding will continue or if not, how it will be replaced.</p>
<p>Articles 12 & 13</p> <p>Dissemination to Member States of information over which Commission has power of disposal, including information derived from research programmes</p>	<p>No equivalent provision.</p>	<p>UK has arrangements for the disclosure of research information. In the area of radioactive waste management NDA and RWM publish much of their research.</p>	<p>As above, it may be important for the UK to secure ongoing access to information from research programmes.</p> <p>The UK may wish to be satisfied about use of information to which UK has contributed in the past and the status of existing patents and licences granted by Commission in relation to radioactive waste management that could impact on future UK activities.</p>
<p>Article 24</p> <p>Information which the Community acquires as a result of carrying out its research programme, and the disclosure of which is liable to harm the defence interests of one or more Member States, shall be subject to a security system</p>	<p>No equivalent provision.</p>	<p>The UK has comprehensive arrangements for protecting information that could prejudice national security.</p>	<p>BEIS may wish to check if there is any information within this category held by the Community and affecting UK security interests which might continue to need protection.</p>

<p>Articles 30, 31 & 33</p>	<p>Commission to lay down Basic Safety Standards for protection of health against ionising radiation.</p> <p>Each Member State shall lay down the appropriate provisions, whether by legislation, regulation or administrative action, to ensure compliance with the basic standards which have been established and shall take the necessary measures with regard to teaching, education and vocational training</p>	<p>IAEA Basic Safety Standards for Radiation Protection plus extensive supporting guides and other technical documents.</p> <p>IAEA Basic Safety Standards are reviewed regularly and align with International Commission on Radiological Protection (ICRP).</p>	<p>The UK has existing legislation in this area (discussed in more detail later).</p> <p>In relation to radioactive waste management, activities are regulated via the Nuclear Installations Act or Environmental Permitting Regulations and general health and safety legislation.</p> <p>These provide the necessary protections including education and training requirements.</p>	<p>No gap identified.</p> <p>It is assumed that current BSS laid down by Euratom will continue as part of UK law, and that the UK will adhere to future changes in ICRP and IAEA standards.</p>
<p>Articles 35 & 36</p>	<p>Each Member State shall establish the facilities necessary to carry out continuous monitoring of the level of radioactivity in the air, water and soil and to ensure compliance with the basic standards.</p> <p>The Commission shall have the right of access to such facilities; it may verify their operation and efficiency.</p> <p>The appropriate authorities shall periodically communicate information on the checks referred to in Article 35 to the Commission so that it is kept informed of the level of radioactivity to which the public is exposed.</p> <p>The type of information and the procedure for reporting are described in Commission Recommendation 2000/473</p>	<p>IAEA Safety Standards and Guides address environmental and source monitoring for radiological protection purposes.</p>	<p>UK has comprehensive legislation and regulatory oversight through the Environment Agency (EA), Scottish Environmental Protection Agency (SEPA), Natural Resources Wales (NRW) and Northern Ireland Environment Agency.</p>	<p>It is assumed that the UK authorities will continue to ensure monitoring in accordance with BSS and IAEA standards.</p> <p>Presumably the Commission will no longer have access for verification purposes and there will be no reporting obligation to the Commission. Accordingly there will be no oversight from a body outside the UK. The UK may wish to consider whether such oversight is desirable to provide confidence to the international community. If so it may be that voluntary arrangements could be made with the IAEA to provide this.</p> <p>The Government will need to consider to what extent it will continue to adhere to the Commission's recommendations on monitoring as representing international good practice, or whether there are other objective standards it will follow.</p>

<p>Article 37</p> <p>Each Member State shall provide the Commission with such general data relating to any plan for the disposal of radioactive waste in whatever form will make it possible to determine whether the implementation of such plan is liable to result in the radioactive contamination of the water, soil or airspace of another Member State.</p> <p>The Commission shall deliver its opinion within six months, after consulting the group of experts.</p> <p>Commission Recommendation 2010/635 provides guidance on the subject of reporting and content of data</p>	<p>No directly analogous provisions, but as will be discussed later, the UK complies with the IAEA Joint Convention on the safety of spent fuel and the safety of radioactive waste management and reports UK activities in relation to radioactive waste management facilities.</p>	<p>The UK has a comprehensive legal framework and regulatory controls of the design, construction, operation and decommissioning of radioactive waste management facilities in the UK to ensure the safety of people and the protection of the environment. These arrangements include the assessment of effects of routine discharges of radioactivity into the environment and via accidental releases.</p> <p>UK currently complies with its international obligations for discharges of radioactivity into the environment, e.g. OSPAR.</p>	<p>It seems unlikely that this obligation will be carried over into UK law after exit from Euratom.</p> <p>This should not have a detrimental effect on safety or environmental protection in the UK, and adherence to relevant standards should ensure that the water, soil and airspace of other Member States is protected.</p> <p>BEIS may wish to ensure that the UK national report to the Joint Convention Review Meetings cover these particular issues.</p> <p>In the interests of good international relations, the Government may also wish to consider a new mechanism through which the UK can inform neighbouring countries of UK discharges and can continue to show that the UK complies with international best practice and expectations.</p>
<p>Article 38</p> <p>The Commission shall make recommendations to the Member States with regard to the level of radioactivity in the air, water and soil.</p> <p>In cases of urgency, the Commission shall issue a directive requiring the Member State concerned to take, within a period laid down by the Commission, all necessary measures to prevent infringement of the basic standards and to ensure compliance with regulations</p>	<p>No equivalent.</p>	<p>The UK has a comprehensive legal framework and regulatory controls to ensure that infringements of regulations relating to discharges of radioactive wastes are minimised and that where infringements do take place there are effective sanctions to punish non-compliance and deter future non-compliance.</p>	<p>On the assumption that the UK regulatory framework works effectively, there should be no adverse impact. There will however be loss of the external accountability provided by Article 38.</p> <p>The Government may wish to consider making sure that the environmental protection regulators have the necessary powers to define and enforce permissible levels of radioactivity in the air, water and soil.</p> <p>It should also be considered whether in future any recommendations made by the Commission will be taken into account by UK regulators.</p>

Council Directive 2013/59/EURATOM – laying down safety standards for protection against the dangers arising from exposure to ionizing radiation

<p>Article 5 Articles 6-18</p>	<p>Member States shall establish legal requirements and an appropriate regime of regulatory control which, for all exposure situations, reflect a system of radiation protection based on the principles of justification, optimisation and dose limitation.</p> <p>This applies to waste activities within its scope.</p> <p>Articles 6-18 contain more specific requirements on dose constraints, reference levels and dose limits, and on training and provision of information</p>	<p>IAEA Basic Standards for Radiation Protection and associated guides and other technical documents.</p>	<p>The UK has a comprehensive legal framework to protect workers and the public from the effects of exposure to ionising radiation. See the Ionising Radiations Regulations 2017, and Justification of Practices involving Ionising Radiation Regulations 2004.</p> <p>The Ionising Radiation Regulations are reviewed regularly to ensure compatibility with international developments.</p>	<p>The UK legislation transposing Article 5 will continue to apply.</p> <p>Since the Euratom standards reflect those of the IAEA and reflect wider international norms, it seems likely that there will be no significant divergence between future UK standards and Euratom standards as they develop.</p>
<p>Article 19</p>	<p>Member States shall ensure that new classes or types of practices resulting in exposure to ionising radiation are justified before being adopted.</p>	<p>IAEA Safety Standards include guidance on justification of practices (GSG-5).</p>	<p>Justification of Practices involving Ionising Radiation Regulations 2004.</p>	<p>The current obligations on justification will continue and it is assumed the UK will continue to adhere to wider international guidance from the IAEA.</p>
<p>Articles 28-29</p>	<p>Member States shall require licensing for the operation, decommissioning and closure of any facility for the long term storage or disposal of radioactive waste, including facilities managing radioactive waste for this purpose</p> <p>Licences must include, as appropriate, specific conditions and reference to requirements in national legislation so as to ensure that the elements of the licence are legally enforceable and impose appropriate restrictions. Where appropriate the licence or national legislation should also require the formal and documented implementation of the principle of optimisation.</p>	<p>IAEA Safety Standards address disposal including geological disposal, the provision of a legal and regulatory framework for safety, fundamental safety principles and the safety case and safety assessment.</p>	<p>Facilities for the long term storage or disposal of radioactive waste will be subject to appropriate licensing controls which will be enforceable.</p> <p>Optimisation is a principle applied by the regulators.</p>	<p>No regulatory gap identified.</p>

<p>Article 65</p> <p>Member States shall ensure that the operational protection of members of the public in normal circumstances from practices subject to licensing shall include, for relevant facilities, the following:</p> <p>(a) examination and approval of the proposed siting of the facility from a radiation protection point of view, taking into account relevant demographic, meteorological, geological, hydrological and ecological conditions;</p> <p>(b) acceptance into service of the facility subject to adequate protection being provided against any exposure or radioactive contamination liable to extend beyond the perimeter of the facility or radioactive contamination liable to extend to the ground beneath the facility;</p> <p>(c) examination and approval of plans for the discharge of radioactive effluents;</p> <p>(d) measures to control the access of members of the public to the facility.</p> <p>The competent authority shall where appropriate establish authorised limits as part of the discharge authorisation and conditions for discharging radioactive effluents which shall:</p> <p>(a) take into account the results of the optimisation of radiation protection;</p> <p>(b) reflect good practice in the operation of similar facilities.</p> <p>In addition, these discharge authorisations shall take into account, where appropriate, the results of a generic screening assessment based on internationally recognised scientific guidance, where such an assessment has been required by the Member State, to demonstrate that environmental criteria for long-term human health protection are met.</p> <p>For practices subject to registration, Member</p>	<p>IAEA have a comprehensive framework in this area including: the Nuclear Safety Convention, The Joint Convention on the Safety of Spent Fuel and the Safety of Radioactive Waste Management, the Radiation Protection Safety Standards including the Basic Safety Standards (BSS) and associated guides.</p>	<p>The UK has a comprehensive legal and regulatory framework to control the use of nuclear energy and for the protection of workers and the public from exposure to ionising radiation.</p> <p>In the case of facilities producing, conditioning, storing or disposing of radioactive waste, the UK has comprehensive nuclear site licensing and environmental permitting regimes that satisfy the requirements of this Article. See; Nuclear Installations Act 1965 (as Amended), Energy Act 2013, Pollution Prevention and Control Act 1999, The Environmental Permitting (England and Wales) Regulations 2016, Radioactive Substances Act 1993.</p> <p>The licensing system as set out in the Nuclear Installations Act 1965 and the Energy Act 2013 and regulated by ONR provides extensive control over:</p> <p>(a) the siting of nuclear facilities.</p> <p>(b) the commissioning and acceptance into service of nuclear facilities.</p> <p>(c) control of radioactive discharges (in conjunction with the environmental protection regulators in EA, SEPA, NRW and NIExec.</p> <p>(d) the control of access of the public to facilities.</p> <p>The Environmental Regulators establish and enforce the discharge of radioactive effluents in accordance with best practice for the protection of the public.</p> <p>The siting of any GDF will also involve a development consent order under the Planning Act 2008, subject to criteria in a national policy statement. Suitability of</p>	<p>No gap identified.</p>
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	States shall ensure the protection of members of the public in normal circumstances through appropriate national regulations and guidance.		the site and its geology will also be considered in that context, including relevant demographic, meteorological, geological, hydrological and ecological conditions.	
Article 66	Member States shall ensure that arrangements are made for the estimation of doses to members of the public from authorised practices. The extent of such arrangements shall be proportionate to the exposure risk involved.	IAEA Basic Safety Standards and guides.	The UK has a comprehensive legal and regulatory framework for the protection of the public from exposure to ionising radiation from all authorised or licensed practices. Safety cases and documentation to support environmental permitting analyse the potential exposure to members of the public from both normal operations and accidents. The application of ALARP and ALARA ensure that arrangements are proportionate to the risk.	No gap identified.
Article 67	Member States shall require the undertaking responsible for practices where a discharge authorisation is granted to monitor appropriately or where appropriate evaluate the radioactive airborne or liquid discharges into the environment in normal operation and to report the results to the competent authority.	IAEA Convention and Safety standards address these issues.	The UK legal and regulatory framework for nuclear licensing and environmental permitting require operators to monitor radioactive waste discharges into the air, rivers and the sea.	No gap identified.

<p>Article 69</p> <p>Member States shall require the undertaking to notify the competent authority immediately of any emergency in relation to the practices for which it is responsible and to take all appropriate action to reduce the consequences. Member States shall ensure that, in the event of an emergency on their territory, the undertaking concerned makes an initial provisional assessment of the circumstances and consequences of the emergency and assists with protective measures.</p> <p>Member States shall ensure that provision is made for protective measures with regard to:</p> <p>(a) the radiation source, to reduce or stop the radiation, including the release of radionuclides;</p> <p>(b) the environment, to reduce the exposure to individuals resulting from radioactive substances through relevant pathways;</p> <p>(c) individuals, to reduce their exposure.</p> <p>In the event of an emergency on or outside its territory, the Member State shall require: (a) the organisation of appropriate protective measures, taking account of the real characteristics of the emergency and in accordance with the optimised protection strategy as part of the emergency response plan, whereby the elements to be included in an emergency response plan are indicated in Section B of Annex XI.</p>	<p>IAEA Conventions and safety standards, requirements and guides for emergency preparedness.</p> <p>IAEA Convention on the Early Notification of Nuclear Accidents.</p>	<p>The UK has a comprehensive legal and regulatory framework to ensure that in the event of an emergency involving nuclear or radioactive materials are notified to Government and regulators.</p> <p>The legal and regulatory framework (Nuclear Installations Act 1965 and Radiation (Emergency Preparedness and Public Information) Regulations 2001) requires the operator/licensee to have emergency plans to respond to nuclear or radiological emergencies. The plans are regularly exercised at national, local and site levels at regular intervals.</p> <p>UK has arrangements in place to respond to accidents at nuclear or radiological facilities in neighbouring states. See Cabinet Office Guidance on National Nuclear Emergency Planning.</p>	<p>No gap identified.</p>
<p>Article 70</p> <p>Information to the members of the public likely to be affected in the event of an emergency. Member States shall ensure that the members of the public likely to be affected in the event of an emergency are given information about the health protection measures applicable to them and about the action they should take in the event of such an emergency.</p> <p>The information supplied shall include at least the elements set out in Section A of Annex XII.</p>		<p>UK has existing arrangements for the notification of members of the public. Radiation (Emergency Preparedness and Public Information) Regulations 2001.</p>	<p>No gap identified.</p>

Article 71	Information to the members of the public actually affected in the event of an emergency Member States shall ensure that, when an emergency occurs, the members of the public actually affected are informed without delay about the facts of the emergency, the steps to be taken and, as appropriate, the health protection measures applicable to these members of the public. 2. The information provided shall cover those points listed in Section B of Annex XII which are relevant to the type of emergency.	IAEA Safety Standards and guides on emergency preparedness.	Radiation (Emergency Preparedness and Public Information) Regulations 2001 and UK emergency response arrangements ensure that in the event of an accidental release of radioactive material, the public will be notified and informed about the measures that will be carried out to provide appropriate protection.	No gap identified.
Article 72	Existing exposure situations: Member States shall ensure that an appropriate environmental monitoring programme is in place.	IAEA Safety Standards and guides on emergency preparedness.	UK has legal (Radiation (Emergency Preparedness and Public Information) Regulations 2001) and regulatory framework that requires environmental monitoring.	No gap identified.

<p>Article 76</p> <p>Member States shall designate a competent authority to carry out tasks in accordance with this Directive. They shall ensure that the competent authority:</p> <p>(a) is functionally separate from any other body or organisation concerned with the promotion or utilisation of practices under this Directive, in order to ensure effective independence from undue influence on its regulatory function;</p> <p>(b) is given the legal powers and human and financial resources necessary to fulfil its obligations.</p> <p>Where a Member State has more than one competent authority for a given area of competence, it shall designate one point of contact for communication with the competent authorities of other Member States. Where it is not reasonably practicable to list all such points of contact for different areas of competence, Member States may designate a single point of contact.</p> <p>Member States shall forward to the Commission the name and address of the points of contact and their respective areas of competence to enable rapid communication, where appropriate, with their authorities.</p>	<p>Joint Convention on the Safety of Spent Fuel and the Safety of Radioactive Waste Management,</p> <p>IAEA Safety Fundamentals, Safety Standards and guides on Government organisation.</p>	<p>UK's nuclear safety regulator ONR is an independent statutory corporation and hence is independent of the Government departments that are responsible for the promotion of nuclear energy and is independent of the nuclear industry.</p> <p>The Environment regulators are independent of those responsible for the promotion and use of radioactive materials.</p> <p>The UK regulatory framework ensures that regulators have the necessary legal powers to regulate the management of radioactive waste.</p> <p>The UK has a designated point of contact in relation to nuclear safety (ONR). In relation to environmental protection the regulatory bodies in England, Scotland, Wales and Northern Ireland have contact arrangements with neighbouring states.</p>	<p>UK regulators will no longer be required to communicate with the Commission regarding points of contact.</p> <p>Government may wish to ensure that there are appropriate bilateral arrangements regarding points of contact between the UK regulators and their counterparts at least in the most appropriate neighbouring states.</p>
<p>Article 97</p> <p>Member States shall ensure that account is taken of the fact that emergencies may occur on their territory and that they may be affected by emergencies occurring outside their territory. Member States shall establish an emergency management system and adequate administrative provisions to maintain such a system. The emergency management system shall include the elements listed in Section A of Annex XI.</p>	<p>IAEA Safety Standards and Emergency Preparedness and Response Framework.</p>	<p>UK has arrangements for responding to emergencies that are generated within the UK and that occur outside the UK. See Cabinet Office Guidance on National Nuclear Emergency Planning.</p>	<p>No gap identified.</p>

<p>Article 98</p> <p>Member States shall ensure that emergency response plans are established in advance for the various types of emergencies identified by an assessment of potential emergency exposure situations.</p> <p>The emergency response plans shall include the elements defined in Section B of Annex XI.</p> <p>The emergency response plans shall also include provision for the transition from an emergency exposure situation to an existing exposure situation.</p> <p>Member States shall ensure that emergency response plans are tested, reviewed and, as appropriate, revised at regular intervals, taking into account lessons learned from past emergency exposure situations and taking into account the results of the participation in emergency exercises at national and international level.</p> <p>The emergency response plans shall, where appropriate, incorporate relevant elements of the emergency management system referred to in Article 97</p>	<p>IAEA Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management, IAEA Safety Standards and guides on emergency preparedness.</p>	<p>UK has extensive arrangements for the management of nuclear and radiological emergencies relating to the management of radioactive waste. See Cabinet Office Guidance on National Nuclear Emergency Planning.</p>	<p>No gap identified.</p>
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<p>Article 99</p> <p>Member States shall cooperate with other Member States and with third countries in addressing possible emergencies on its territory which may affect other Member States or third countries, in order to facilitate the organisation of radiological protection in those Member States or third countries.</p> <p>Each Member State shall, in the event of an emergency occurring on its territory or likely to have radiological consequences on its territory, promptly establish contact with all other Member States and with third countries which may be involved or are likely to be affected with a view to sharing the assessment of the exposure situation and coordinating protective measures and public information by using, as appropriate, bilateral or international information exchange and coordination systems. These coordination activities shall not prevent or delay any necessary actions to be taken on a national level.</p> <p>Each Member State shall promptly share information and cooperate with other relevant Member States, relevant third countries and relevant international organisations regarding the loss, theft or discovery of high-activity sealed sources, other radioactive sources and radioactive material of concern and regarding related follow-up or investigations, without prejudice to relevant confidentiality requirements and relevant national legislation.</p> <p>Each Member State shall, where appropriate, cooperate with other Member States and with third countries in the transition from an emergency exposure situation to an existing exposure situation.</p>	<p>1986 Convention on Early Notification of a Nuclear Accident ("Early Notification Convention"),</p> <p>1986 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency ("Assistance Convention").</p>	<p>UK has arrangements for cooperation with neighbouring countries in the event of a nuclear or radiological accidents or emergencies.</p>	<p>Government may wish to check that there is clarity in relation to which Department has responsibility for implementing the requirements of the IAEA Conventions on early notification and the Convention on assistance.</p> <p>Government may also wish to satisfy itself that the principal regulators ONR and EA understand their roles and responsibilities in this area.</p>
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Directive 2011/70/EURATOM Community Framework for the responsible and safe management of spent fuel and radioactive waste

<p>Article 1</p>	<p>The Directive establishes a Community framework for ensuring responsible and safe management of spent fuel and radioactive waste to avoid imposing undue burdens on future generations.</p> <p>It ensures that Member States provide for appropriate national arrangements for a high level of safety in spent fuel and radioactive waste management to protect workers and the general public against the dangers arising from ionising radiation.</p> <p>It ensures the provision of necessary public information and participation in relation to spent fuel and radioactive waste management while having due regard to security and proprietary information issues.</p> <p>Without prejudice to Directive 96/29/Euratom, the Directive supplements the basic standards referred to in Article 30 of the Euratom Treaty as regards the safety of spent fuel and radioactive waste.</p>	<p>IAEA Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management, supported by IAEA Safety Standards and Guides.</p>	<p>The UK complies with the requirements of the IAEA Joint Convention.</p> <p>The UK has a comprehensive legal and regulatory framework for ensuring high levels of safety in facilities that produce, handle and store spent nuclear fuel and in facilities that produce, handle, condition, store and dispose of radioactive waste.</p> <p>There are arrangements for public participation and information in relation to spent fuel and radioactive waste management</p> <p>The NDA, RWM and the waste producers publish information on the management of spent fuel and radioactive waste including the national inventory.</p>	<p>No gap identified.</p> <p>The UK will remain subject to its obligations under the IAEA Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.</p>
<p>Article 2</p>	<p>Scope</p> <p>1. The Directive shall apply to all stages of:</p> <p>(a) spent fuel management when the spent fuel results from civilian activities;</p> <p>(b) radioactive waste management, from generation to disposal, when the radioactive waste results from civilian activities.</p>	<p>IAEA Joint Convention has the same scope.</p>	<p>The UK's legal and regulatory framework relating to the management of spent fuel and the management of radioactive waste covers the scope of the EU Directive</p>	<p>No gap identified.</p>

<p>Article 4</p> <p>Member States shall establish and maintain national policies on spent fuel and radioactive waste management. Each Member State shall have ultimate responsibility for management of the spent fuel and radioactive waste generated in it.</p> <p>Where radioactive waste or spent fuel is shipped for processing or reprocessing to a Member State or a third country, the ultimate responsibility for the safe and responsible disposal of those materials, including any waste as a by-product, shall remain with the Member State or third country from which the radioactive material was shipped.</p> <p>National policies shall be based on all of the following principles:</p> <p>the generation of radioactive waste shall be kept to the minimum which is reasonably practicable</p> <p>the interdependencies between all steps in spent fuel and radioactive waste generation and management shall be taken into account</p> <p>spent fuel and radioactive waste shall be safely managed, including in the long term with passive safety features</p> <p>implementation of measures shall follow a graded approach</p> <p>the costs for the management of spent fuel and radioactive waste shall be borne by those who generated those materials</p> <p>an evidence-based and documented decision-making process shall be applied with regard to all stages of the management of spent fuel and radioactive waste</p> <p>Radioactive waste in general shall be disposed of in the Member State in which it was generated, except where the specific requirements of the Directive are satisfied.</p>	<p>IAEA Joint Convention, IAEA Safety Fundamentals.</p>	<p>The UK has comprehensive arrangements for the development of national policies in relation to spent fuel and radioactive waste management. The NDA is charged with developing and updating the national strategy.</p> <p>UK has well established arrangements operated by BEIS and the NDA to ensure that radioactive wastes generated from reprocessing of spent nuclear fuel is returned to the country of origin.</p> <p>UK has a radioactive waste hierarchy which requires radioactive waste minimisation – see conditions attached to nuclear site licences.</p> <p>NDA national strategy together with the nuclear licensing and environmental permitting provides for interdependencies to be identified and managed.</p> <p>UK nuclear licensing regime ensures that spent fuel and radioactive waste is safely managed. ONR aim is to ensure that long-term storage of spent fuels and radioactive waste will be safe.</p> <p>Application of ALARP and ALARA ensure measures are graded.</p> <p>UK arrangements, where appropriate, ensure that the cost of the management of spent fuel and radioactive waste are borne by those who produce the waste.</p> <p>The NDA strategy and the conditions attached to nuclear site licences and environmental permits provide documented records.</p>	<p>No gap identified.</p>
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<p>Article 5</p> <p>Member States shall establish and maintain a national legislative, regulatory and organisational framework ('national framework') for spent fuel and radioactive waste management that allocates responsibility and provides for coordination between relevant competent bodies. The national framework shall provide for all of the following:</p> <p>a national programme for the implementation of spent fuel and radioactive waste management policy</p> <p>national arrangements for the safety of spent fuel and radioactive waste management</p> <p>a system of licensing of spent fuel and radioactive waste management activities, facilities or both, including the prohibition of spent fuel or radioactive waste management activities, of the operation of a spent fuel or radioactive waste management facility without a licence or both and, if appropriate, prescribing conditions for further management of the activity, facility or both</p> <p>a system of appropriate control, a management system, regulatory inspections, documentation and reporting obligations for radioactive waste and spent fuel management activities, facilities or both, including appropriate measures for the post-closure periods of disposal facilities</p> <p>The allocation of responsibility to the bodies involved in the different steps of spent fuel and radioactive waste management; in particular, the national framework shall give primary responsibility for the spent fuel and radioactive waste to their generators or, under specific circumstances, to a licence holder to whom this responsibility has been entrusted by competent bodies.</p>	<p>IAEA Joint Convention on the Safety of Spent Fuel management and the Safety of Radioactive Waste Management, IAEA Nuclear Safety Convention, IAEA Safety Standards and Guides</p> <p>All the above the above require a Member State to set up and maintain national laws to control the use of nuclear energy, and to establish and maintain a nuclear regulatory body.</p>	<p>The UK has an extensive legal and regulatory framework for controlling the use of nuclear energy in order to provide protection for workers, the public and the environment.</p> <p>BEIS/DEFRA/SG/WG/NDA set national policy and strategy for radioactive waste. See Nuclear Installations Act 1965 (as amended); Energy Act 2013, Pollution Prevention and Control Act 1999, The Environmental Permitting (England and Wales) Regulations 2016, Radioactive Substances Act 1993.</p> <p>Nuclear licensing system operated by Office of Nuclear Regulation applies to spent fuel storage and reprocessing facilities, and radioactive waste treatment, conditioning and storage of radioactive waste.</p> <p>ONR and the environment regulators carry out regulatory inspection programmes to monitor compliance with requirements,</p> <p>In the UK allocation of responsibilities is clear. See Nuclear Installations Act 1965 (as Amended) and Energy Act 2013.</p>	<p>No identified gap.</p>
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<p>Article 6</p>	<p>Each Member State shall establish and maintain a competent regulatory authority in the field of safety of spent fuel and radioactive waste management.</p> <p>Member States shall ensure that the competent regulatory authority is functionally separate from any other body or organisation concerned with the promotion or utilisation of nuclear energy or radioactive material, including electricity production and radioisotope applications, or with the management of spent fuel and radioactive waste, in order to ensure effective independence from undue influence on its regulatory function.</p> <p>Member States shall ensure that the competent regulatory authority is given the legal powers and human and financial resources necessary to fulfil its obligations in connection with the national framework</p>	<p>IAEA Joint Convention on the Safety of Spent Fuel management and the Safety of Radioactive Waste Management, IAEA Nuclear Safety Convention, IAEA Safety Standards and Guides.</p>	<p>UK has well established regulators.</p> <p>Nuclear safety regulator ONR is independent of the government department responsible for the promotion of nuclear energy and independent of the nuclear Industry.</p> <p>All the UK regulators have extensive powers to control the use of nuclear energy and the management of both spent fuel and radioactive waste. Regulators can recover their cost and this ensures that they are adequately funded.</p>	<p>No gap identified.</p>
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<p>Article 7</p> <p>Member States shall ensure that the prime responsibility for the safety of spent fuel and radioactive waste management facilities and/or activities rest with the licence holder. That responsibility cannot be delegated.</p> <p>Member States shall ensure that the national framework in place require licence holders, under the regulatory control of the competent regulatory authority, to regularly assess, verify and continuously improve, as far as is reasonably achievable, the safety of the radioactive waste and spent fuel management facility or activity in a systematic and verifiable manner. This shall be achieved through an appropriate safety assessment, other arguments and evidence.</p> <p>As part of the licensing of a facility or activity the safety demonstration shall cover the development and operation of an activity and the development, operation and decommissioning of a facility or closure of a disposal facility as well as the post-closure phase of a disposal facility. The extent of the safety demonstration shall be commensurate with the complexity of the operation and the magnitude of the hazards associated with the radioactive waste and spent fuel, and the facility or activity. The licensing process shall contribute to safety in the facility or activity during normal operating conditions, anticipated operational occurrences and design basis accidents. It shall provide the required assurance of safety in the facility or activity. Measures shall be in place to prevent accidents and mitigate the consequences of accidents, including verification of physical barriers and the licence holder's administrative protection procedures that would have to fail before workers and the general public would be significantly affected by ionising radiation. That approach shall identify and reduce uncertainties.</p> <p>Member States shall ensure that the national framework require licence holders to establish</p>	<p>IAEA Joint Convention on the Safety of Spent Fuel management and the Safety of Radioactive Waste Management, IAEA Nuclear Safety Convention, IAEA Safety Standards and Guides.</p>	<p>UK law places the prime responsibility for the safety of spent fuel and radioactive waste management facilities on the licensee/operator NI Act 1965 (as amended),</p> <p>Nuclear site licence conditions require periodic safety reviews and Health and Safety at Work Act 1974 requires the duty holder (licensee) to ensure that the risks to workers and the general public are reduced as low as is reasonably practicable (ALARP)</p> <p>The design, construction, commissioning, operation and decommissioning of these facilities are subject to licensing and as such require the production of safety cases to substantiate the safety of these activities.</p> <p>Radioactive waste disposal facilities are subject to environmental permitting and in the case of geological disposal facilities, these will be subject to licensing.</p> <p>All radioactive waste disposal facilities require post closure safety cases.</p> <p>Conditions attached to the nuclear site licence and environmental permits require the operator to have comprehensive nuclear safety, security and environmental management systems to be in place including quality assurance. Licensee's management arrangements are subject to regulatory inspection by ONR and EA in England, ONR and SEPA in Scotland and ONR and NRW in Wales. There are no facilities in Northern Ireland.</p> <p>LC 36 require licensee to have adequate financial resources.</p>	<p>No gap identified.</p>
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	<p>and implement integrated management systems, including quality assurance, which give due priority for overall management of spent fuel and radioactive waste to safety and are regularly verified by the competent regulatory authority.</p> <p>Member States shall ensure that the national framework requires licence holders to provide for and maintain adequate financial and human resources to fulfil their obligations with respect to the safety of spent fuel and radioactive waste management.</p>			
Article 8	<p>Member States shall ensure that the national framework requires all parties to make arrangements for education and training for their staff, as well as research and development activities to cover the needs of the national programme for spent fuel and radioactive waste management in order to obtain, maintain and to further develop necessary expertise and skills.</p>	<p>IAEA Joint Convention on the Safety of Spent Fuel management and the Safety of Radioactive Waste Management, IAEA Nuclear Safety Convention, IAEA Safety Standards and Guides.</p>	<p>Under the Energy Act 2004, NDA are required to have a research and development programme to support spent fuel and radioactive waste management activities</p> <p>NDA have a research Programme Board</p> <p>RWM has a research and development programme to support the disposal of spent fuel and radioactive waste.</p>	<p>No gap identified.</p> <p>Government may wish reinforcing CoRWM's responsibility to advise on adequacy of R&D programmes.</p>

<p>Article 9</p> <p>Member States shall ensure that the national framework requires that adequate financial resources be available when needed for the implementation of national programmes, especially for the management of spent fuel and radioactive waste, taking due account of the responsibility of spent fuel and radioactive waste generators.</p>	<p>IAEA Joint Convention on the Safety of Spent Fuel management and the Safety of Radioactive Waste Management, IAEA Nuclear Safety Convention, IAEA Safety Standards and Guides.</p>	<p>See Energy Act 2004, Energy Act 2008, Energy Act 2013, Nuclear Installations Act 1965 (as amended)</p> <p>Provision for nuclear legacy wastes is made through the Government and NDA. Under the Energy Act 2008 arrangements ensure that operators of new nuclear power stations will have secure financing arrangements in place to meet the full costs of decommissioning and their full share of waste management and disposal costs. Before construction begins, an operator of a new nuclear power station will have to submit a Funded Decommissioning Programme (FDP) for approval by the Secretary of State. The independent Nuclear Liabilities Financing Assurance Board was established to provide impartial scrutiny and advice on the suitability of FDPs.</p> <p>Standard Nuclear Site Licence Condition 36 requires licensees to have adequate financial resources.</p>	<p>No gap identified.</p>
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<p>Article 10</p> <p>Member States shall ensure that necessary information on the management of spent fuel and radioactive waste be made available to workers and the general public. This obligation includes ensuring that the competent regulatory authority inform the public in the fields of its competence. Information shall be made available to the public in accordance with national legislation and international obligations, provided that this does not jeopardise other interests such as, inter alia, security, recognised in national legislation or international obligations.</p> <p>Member States shall ensure that the public be given the necessary opportunities to participate effectively in the decision-making process regarding spent fuel and radioactive waste management in accordance with national legislation and international obligations.</p>	<p>IAEA Joint Convention on the Safety of Spent Fuel management and the Safety of Radioactive Waste Management, IAEA Nuclear Safety Convention, IAEA Safety Standards and Guides.</p>	<p>The UK complies with its obligations in the IAEA Joint Convention.</p> <p>UK produces national reports on spent fuel and radioactive waste for submission to the Joint Convention peer review meeting. These national reports are now published.</p> <p>UK nuclear safety and environmental regulators publish their safety and environmental assessments of licensee activities including new facility design, construction, operation and decommissioning; and regulatory inspections and enforcement activities.</p> <p>UK regulators consult the public on changes in regulatory policy. The UK siting process for geological disposal facilities involves extensive public engagement in the decision making process.</p>	<p>No gap identified.</p>
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<p>Article 12</p> <p>The national programmes shall set out how the Member States intend to implement their national policies referred to in Article 4 for the responsible and safe management of spent fuel and radioactive waste to secure the aims of this Directive, and shall include all of the following:</p> <p>the overall objectives of the Member State's national policy in respect of spent fuel and radioactive waste management</p> <p>the significant milestones and clear timeframes for the achievement of those milestones in light of the over-arching objectives of the national programme</p> <p>an inventory of all spent fuel and radioactive waste and estimates for future quantities, including those from decommissioning, clearly indicating the location and amount of the radioactive waste and spent fuel in accordance with appropriate classification of the radioactive waste</p> <p>the concepts or plans and technical solutions for spent fuel and radioactive waste management from generation to disposal</p> <p>the concepts or plans for the post-closure period of a disposal facility's lifetime, including the period during which appropriate controls are retained and the means to be employed to preserve knowledge of that facility in the longer term</p> <p>the research, development and demonstration activities that are needed in order to implement solutions for the management of spent fuel and radioactive waste</p> <p>the responsibility for the implementation of the national programme and the key performance indicators to monitor progress towards implementation</p> <p>an assessment of the national programme costs and the underlying basis and hypotheses for that assessment, which must include a profile over time</p>	<p>IAEA Joint Convention on the Safety of Spent Fuel management and the Safety of Radioactive Waste Management, IAEA Nuclear Safety Convention, IAEA Safety Standards and Guides.</p>	<p>The UK has comprehensive arrangements for the development of national policies in relation to spent fuel and radioactive waste management. The NDA is charged with developing and updating the national strategy.</p> <p>The 2004 Energy Act set up the NDA. The NDA Strategy sets out the UK's objectives and means of meeting these objectives in relation to spent fuel and radioactive waste. The NDA Strategy sets out key decommissioning and radioactive waste management milestones.</p> <p>The NDA produces and publishes the UK national inventory of spent fuel and radioactive waste including that which will arise from decommissioning.</p> <p>Licensees and the NDA produce and publish concepts or plans for the technical solutions for spent fuel and radioactive waste management. NDA's site licence companies produce and publish comprehensive life-time plans for decommissioning and radioactive waste management for each site.</p> <p>RWM/NDA produce and publish information on GDF proposals</p> <p>NDA and RWM have research and development programmes to support decommissioning and the disposal of radioactive waste.</p> <p>NDA is charged with the responsibility of producing, delivering and monitoring the national programme. BEIS /SG/WG also have Departments that monitor the delivery of national spent fuel and radioactive waste management including programme costs.</p>	<p>No gap identified.</p>
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<p>the financing scheme(s) in force</p> <p>a transparency policy or process as referred to in Article 10</p> <p>if any, the agreement(s) concluded with a Member State or a third country on management of spent fuel or radioactive waste, including on the use of disposal facilities</p>			
<p>Article 13</p> <p>Member States shall notify to the Commission their national programmes and any subsequent significant changes.</p> <p>The Commission, when deciding on the provision of Community financial or technical assistance for spent fuel and radioactive waste management facilities or activities, shall take into account the Member States' clarifications and progress regarding the national programmes.</p>	<p>No equivalent.</p>	<p>The UK prepares and notifies its National Programme which details how the UK intends to implement its national policies for the responsible and safe management of spent fuel and radioactive waste. The document covers the range of policies, strategies and approaches within the UK. The current programme was notified in 2015.</p>	<p>The importance of future notification will depend on what future arrangements come into place between the UK and Euratom in terms of collaboration.</p> <p>The programme in any event constitutes a useful summary for the public and for other countries of the UK's policies and their implementation, and the Government is recommended to publish future updates to the National Programme.</p>

<p>Article 14</p> <p>Reporting Member States shall submit a report to the Commission on the implementation of this Directive for the first time by 23 August 2015, and every 3 years thereafter, taking advantage of the review and reporting under the Joint Convention.</p> <p>Member States shall periodically, and at least every 10 years, arrange for self-assessments of their national framework, competent regulatory authority, national programme and its implementation, and invite international peer review of their national framework, competent regulatory authority and/or national programme with the aim of ensuring that high safety standards are achieved in the safe management of spent fuel and radioactive waste. The outcomes of any peer review shall be reported to the Commission and the other Member States, and may be made available to the public where there is no conflict with security and proprietary information.</p>	<p>IAEA Joint Convention on the Safety of Spent Fuel management and the Safety of Radioactive Waste Management.</p>	<p>As a Contracting Member of the IAEA Joint Convention, the UK submits a National Report to the Convention Meeting every 3 years.</p> <p>The UK has regularly invited the IAEA to send a mission to undertake a peer review of its nuclear safety regulatory framework.</p>	<p>The UK Government may wish to put the IAEA National Report on a more formal footing to ensure that the IAEA is invited to undertake a review of its nuclear safety and radioactive waste management regulatory framework.</p>
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Council Decision 87/600/Euratom on early exchange of information in the event of a radiological emergency

<p>Article 1</p>	<p>1. Arrangements apply to the notification and provision of information whenever a Member State decides to take measures of a wide-spread nature in order to protect the general public in case of a radiological emergency following :</p> <p>(a) an accident in its territory involving facilities or activities referred to in paragraph 2 from which a significant release of radioactive material occurs or is likely to occur ; or</p> <p>(b) the detection, within or outside its own territory, of abnormal levels of radioactivity which are likely to be detrimental to public health in that Member State ; or</p> <p>(c) accidents other than those specified in (a) involving facilities or activities referred to in paragraph 2 from which a significant release of radioactive material occurs or is likely to occur ; or</p> <p>(d) other accidents from which a significant release of radioactive materials occurs or is likely to occur.</p> <p>2. The facilities or activities referred to in paragraph 1 (a) and 1 (c) include the following :</p> <p>(a) any nuclear reactor, wherever located ;</p> <p>(b) any other nuclear fuel cycle facility ;</p> <p>(c) any radioactive waste management facility ;</p> <p>(d) the transport and storage of nuclear fuels or radioactive wastes;</p> <p>A Member State should whenever possible provide the Commission and those Member States which are likely to be affected with notification of its intention to take without delay measures as referred to in Article 1.</p>	<p>IAEA Convention on Early Notification of a Nuclear Accident.</p>	<p>The UK will continue to have obligations under the IAEA Convention on Early Notification of a Nuclear Accident (1986).</p> <p>Presumably arrangements for mutual notification with the Community will remain in effect, as will bilateral arrangements with countries such as France, Ireland, The Netherlands, Norway, Russia, etc.</p>	<p>No gap identified.</p> <p>However, BEIS may wish to consider if the current bilateral information exchange arrangements are sufficient and whether reporting to the IAEA will be sufficient to ensure all EU states are informed of an accident in the UK which could have consequences for the territories of the Community.</p>
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Directive 89/618/Euratom on informing the public in the event of radiological emergencies

<p>Article 1</p>	<p>The Directive defines, at Community level, common objectives with regard to measures and procedures for informing the general public for the purpose of improving the operational health protection provided in the event of a radiological emergency.</p>	<p>IAEA Joint Convention, IAEA Safety Standards relating to radiation protection and emergency preparedness.</p>	<p>The UK has robust under the Radiation (Emergency Preparedness and Public Information) Regulations 2001 that require communities local to a nuclear installation to be provided with relevant information.</p>	<p>No gap identified.</p>
<p>Article 5 Prior Notification</p>	<ol style="list-style-type: none"> 1. Member States shall ensure that the population likely to be affected in the event of a radiological emergency is given information about the health-protection measures applicable to it and about the action it should take in the event of such an emergency. 2. The information supplied shall at least include the elements set out in Annex I. 3. This information shall be communicated to the population referred to in paragraph 1 without any request being made. 4. Member States shall update the information and circulate it at regular intervals and whenever significant changes in the arrangements that it describes take place. This information shall be permanently available to the public. 			

Regulation 93/1493/Euratom on shipments of radioactive substances between Member States

<p>Article 1</p>	<p>The Regulation applies to shipments, between Member States, of sealed sources and other relevant sources, whenever the quantities and concentrations exceed the levels laid down in Article 4 (a) and (b) of Directive 80/836/Euratom. It also applies to shipments of radioactive waste, between Member States, as covered by Directive 92/3/Euratom.</p>	<p>IAEA Joint Convention, IAEA Safety Standards on the transport of nuclear and radioactive materials .</p>	<p>UK transport regulations for nuclear materials and radioactive waste currently comply with the IAEA Transport Standards and requirements.</p>	<p>Consideration will need to be given, in the context of ongoing arrangements between the UK and EU as to how shipments of radioactive substances will be regulated, in order to ensure as little disruption as possible to existing arrangements.</p>
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Directive 2006/117/Euratom on supervision and control of shipments of radioactive waste and spent fuel

<p>Article 1</p>	<p>The Directive lays down a Community system of supervision and control of transboundary shipments of radioactive waste and spent fuel, so as to guarantee an adequate protection of the population.</p> <p>It applies to transboundary shipments of radioactive waste or spent fuel whenever:</p> <p>(a) the country of origin or the country of destination or any country of transit is a Member State of the Community; and</p> <p>(b) the quantities and concentration of the consignment exceed the levels laid down in Article 3(2) points (a) and (b) of Directive 96/29/Euratom.</p>	<p>IAEA Joint Convention, IAEA Safety Standards on the transport of nuclear and radioactive materials</p>	<p>The UK has a robust legal and regulatory framework for the control of shipments of spent fuel sent for reprocessing and radioactive waste.</p> <p>See the Transfrontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008. These provide a clear and certain timetable for the authorisation procedure, by setting time limits for consent from other Member States and a “deemed consent” procedure in cases where no response is forthcoming.</p>	<p>Consideration will need to be given, in the context of ongoing arrangements between the UK and EU, as to how shipments of radioactive waste and spent fuel will be regulated, in order to ensure as little disruption as possible to existing arrangements for shipments of waste to or through Euratom States.</p>
<p>Article 6 Intra-Community Shipments</p>	<p>A holder who plans to carry out an intra-Community shipment of radioactive waste or spent fuel or to arrange for such a shipment to be carried out shall submit a duly completed application for authorisation to the competent authorities of the Member State of origin.</p>			
<p>Article 13 Imports into the Community</p>	<p>Where radioactive waste or spent fuel falling within the scope of the Directive is to enter the Community from a third country and the country of destination is a Member State, the consignee shall submit an application for authorisation to the competent authorities of that Member State. The application may be sent in respect of more than one shipment, under the conditions set out in Article 6(2).</p>			