

EXITING EURATOM

by Stephen Tromans QC¹ and Ian Truman²

Abstract

This paper explains the process by which the United Kingdom will leave the European Union (“**EU**”) and the European Atomic Energy Community (“**Euratom**”) and the potential implications for the UK, EU and global nuclear sectors (“**Brexit**”).

In the first section of the paper the authors provide some background to the UK's decision to leave the EU and Euratom before explaining the current proposals for the UK's withdrawal and transition to become a third state.

After reviewing the general impact of leaving the EU and Euratom on the UK legal system the authors go on to consider the more detailed implications for the UK, EU and global nuclear sectors in terms of the current objectives of the Euratom Treaty.

The final part of the paper explains the UK Government's current proposals for its future trading relationship with Euratom after Brexit.

General explanation of Brexit process

On the 23 June 2016, the UK electorate voted by a 51.9% majority to leave the EU. Membership of Euratom was neither mentioned in the referendum campaign nor included on the final referendum ballot paper.

After some speculation, in January 2017 the UK Government published its EU (Notification of Withdrawal) Bill, the Explanatory Notes to which confirmed for the first time that the UK would also leave Euratom. In a later statement to Parliament, David Jones, Minister of State at the Department for Exiting the European Union, argued that the common institutional framework shared by Euratom and the EU, “*including the European Court of Justice, a role for the Commission and decision making in the Council*” meant Euratom and the EU were “*uniquely legally joined*” and that “*triggering Article 50 therefore also entails giving notice to leave Euratom*”. Prior to this, conflicting views had been expressed as to whether it was legally possible for the UK to leave the EU but remain a party to Euratom as a separate Treaty. This, however, became a question of academic interest only.

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On 29 March 2017, the UK Government formally notified the European Council of its intention to leave the EU and Euratom pursuant to Article 50 of the Treaty of European Union (“**TEU**”) and Article 106(a) of the Euratom Treaty respectively. The service of this notice triggered a two year time period established under Article 50 of the TEU, meaning that the UK would formally leave the EU and Euratom at 11pm³ on 29 March 2019.

At the time of preparing this paper, shortly after the UK Prime Minister’s unsuccessful attempt in Salzburg in September 2018 to convince other EU leaders of her “Chequers plan” for a future relationship, it remains entirely unclear what, if any, terms will be agreed on the UK’s exit and future relations between the UK and EU/Euratom. Whilst there appear to be no major disagreements as to issues with Euratom, any agreement at present depends on general consensus between the UK and EU being reached on other, much more controversial points which at present are agreed only “in principle” or not at all. With each day that passes, the prospect of a “hard” Brexit, with no agreed terms (“**a no deal Brexit**”), becomes more realistic. In what is a highly unpredictable political environment in the UK, it is no exaggeration to say that almost anything could happen over the next few months. The position presented here will therefore be updated, supplemented and quite possibly entirely rewritten at the INLA conference in Abu Dhabi.

Since 29 March 2017 the UK and the EU have been trying to agree the following arrangements in sufficient time for them to be formally ratified by 29 March 2019:

- the arrangements for the UK’s withdrawal from the EU ‘taking into account the framework for its future relationship with the Union’ (“**the Withdrawal Agreement**”); and
- the UK’s future trade/relationship with the EU to take effect after the UK’s withdrawal (“**the Future Trade Agreement**”).

It has been well documented that the EU refused to discuss the Future Trade Agreement with the UK until *sufficient progress* had been made on the Withdrawal Agreement. As a result certain Euratom issues deemed to relate to the future relationship between the parties, such as the status of existing nuclear fuel supply contracts, were not discussed until the EU confirmed sufficient progress had been made in December 2017. The EU and the UK have agreed in principle that the Withdrawal Agreement will provide a transitional or ‘implementation’ period during which the UK will:

- remain bound by the EU *acquis* (including the Euratom Treaty);
- remain subject to the jurisdiction of the Court of Justice of the European Union (“**CJEU**”); and
- retain full access to the Single Market and the Nuclear Common Market.

The parties have agreed that any such transitional or implementation period would expire on 31 December 2020 when the current EU multi-annual financial framework expires.

Although the prospect of a transitional or implementation period has been widely welcomed by the nuclear sector, it remains dependent on all outstanding withdrawal issues being agreed between the EU and the UK. Given the complexity and highly

³ 11pm UK time, midnight in Brussels

political nature of some of these issues (e.g. the Irish border), it remains possible that the UK will leave Euratom on 29 March 2019 without any transitional arrangements in place.

The UK Government has been preparing contingency plans for a no deal Brexit which are detailed below. It is also possible that the two year Article 50 process could be extended, though that would require the unanimous consent all remaining 27 EU Member States.

On 23 August 2018 the UK Government issued a series of guidance notes⁴ providing instructions to businesses in certain sectors in the event of a no deal Brexit. There were separate guidance notes for:

- The Civil Nuclear Sector;
- Nuclear research & development; and
- Export Controls.

The general impact of Brexit on UK law

The UK will remain a full member of the EU and Euratom until 29 March 2019. The recently enacted European Union (Withdrawal) Act 2018⁵ provides that from 11pm on the 29 March 2019, the European Communities Act 1972⁶ (which grants supremacy to EU law over UK law) will be repealed and all direct EU legislation and UK legislation derived from EU law, will become UK law.

This should mean that, at least initially, UK and EU law will be separate but aligned. The UK Government will then have to undertake the considerable task of reviewing and if necessary amending, repealing or replacing all of this legislation. The extent to which UK legislation remains aligned with EU legislation after Brexit is likely to depend on the customs arrangements agreed between the EU and the UK. A further important point is that under the legislation governing devolution in Scotland⁷ and Wales,⁸ some aspects of nuclear law are devolved,⁹ so that once constraints imposed by EU law are removed, national laws may diverge.¹⁰ It is understood that the UK Government has recently set up a task force consisting of representatives of the national governments and regulators to seek to avoid difficult inconsistencies emerging. As outlined above, if the UK and the EU enter into a Withdrawal Agreement, it is likely that the UK will remain subject to the jurisdiction of the CJEU during the transitional period. As it currently stands the Withdrawal Agreement provides that the CJEU:

⁴ <https://www.gov.uk/government/collections/how-to-prepare-if-the-uk-leaves-the-eu-with-no-deal>

⁵ <http://www.legislation.gov.uk/ukpga/2018/16/contents/enacted>

⁶ <http://www.legislation.gov.uk/ukpga/1972/68/contents>

⁷ The Scotland Act 1998

⁸ The Government of Wales Act 1998; the Government of Wales Act 2006.

⁹ For example, under the Scotland Act 1998 Schedule 5, part D4, the following matters are reserved to the UK Government: "Nuclear energy and nuclear installations, including— (a) nuclear safety, security and safeguards, and (b) liability for nuclear occurrences. Matters relating to for example basic safety standards and the regulation of radioactive waste, are not reserved and are for the Scottish Government.

¹⁰ A currently intensely controversial political issue in the UK is to what extent law making powers in some areas of EU competence will be taken back by the UK government in order to ensure consistency.

- will continue to have jurisdiction for any proceedings brought before it by, or against, the UK before the end of the transition period¹¹; and
- will be able to provide a preliminary ruling to UK Courts during the transition period¹².

It should be noted, however, that at the time this article was written the applicable sections of the Withdrawal Agreement dealing with CJEU jurisdiction during transition are not yet agreed.

In the event of a no deal Brexit, the UK courts will not be legally bound by any decisions of the CJEU after 29 March 2019, although they may still have regard to them. The way in which the UK courts will treat future CJEU decisions in this scenario is a matter for speculation at present. Without a Withdrawal Agreement the UK Courts will not be able to refer any matters to the CJEU after 29 March 2019 and of course the Commission will no longer be able to take infraction proceedings against the UK.

The Withdrawal Agreement – unravelling Euratom

The principal task of the Euratom Community, as set out in Article 1 of the Euratom Treaty, is to:

“...contribute to the raising of the standard of living in the Member States and to the development of relation with the other countries by creating the conditions necessary for the speedy establishment and growth of nuclear industries.”

This overall objective is then broken down into a number of lower level objectives which are outlined below:

Research and development

The Euratom Community aims to pursue nuclear research and training activities with a specific emphasis on continually improving nuclear safety, security and radiation protection, notably to contribute to the long-term decarbonisation of the energy system in a safe, efficient and secure way.

To facilitate this objective the Euratom Community has established the Euratom Research Programme which runs in 5 year cycles with scope for a 2 year extension within the same EU Multiannual Financial Framework. With the current cycle expiring at the end of 2018 the EU has agreed in principle to an extension to 31 December 2020 but the final decision will not be taken until later in 2018 once the European Parliament has submitted its view.

World Nuclear News has reported that the UK could lose £55 million per year in funding from the Euratom Research Programme¹³ after Brexit. It is also possible that such funding will be curtailed before this date, especially if it becomes clear during Brexit negotiations that the UK will not remain in the Single Market/Nuclear common Market.

¹¹ Article 82(1) of the Withdrawal Agreement

¹² Article 82(2) of the Withdrawal Agreement

¹³ <http://www.world-nuclear-news.org/NP-The-Brexit-effect-on-UK-nuclear-24061601.html>

The UK is a member of the EUROfusion consortium and hosts the Joint European Torus (“**JET**”) at the Culham Center of Fusion Energy in Oxfordshire. JET is operated under a contract which is due to expire in December 2018.

The UK Government has confirmed that in the event of a no deal Brexit it will continue to honour its existing funding commitment in the JET contract until the end of 2020 and it has expressed its hope that the EU would reciprocate¹⁴.

The UK also participates in the International Thermonuclear Experimental Reactor (“**ITER**”) project in Cadarache in France through its membership of Euratom. The UK Government has confirmed that it intends to seek agreement to continue to collaborate with European Partners on major science, research and technology initiatives which includes the ITER project¹⁵. EUROfusion states on its website that the UK’s participation in ITER and EUROfusion will have to be re-negotiated as part of Brexit¹⁶.

Dissemination of Information

Chapter 2 of the Euratom Treaty deals with specific obligations on both the Euratom Community and its Member States relating to the dissemination of information. The Euratom Community is currently obliged to:

- grant sub-licences to members of the Euratom Community under patents, provisionally protected patent rights, utility models or patent applications owned by the Euratom Community, where such members are able to make effective use of the invention in question; and
- communicate to members any other information derived from the Euratom Research Programme or other sources.

Member States are currently required to disclose any patent application or utility model in the nuclear field to the European Commission even if the applicant does not consent.

On leaving the Euratom Community the UK will no longer have the rights to request such sub-licences and will not necessarily be provided with the results of research undertaken in other Euratom Member States. On the other hand, it will not necessarily be required to share the results of its nuclear R&D with other Euratom Member States.

Basic Safety Standards

The Euratom Community has established a set of basic safety standards to protect workers, members of the public and patients against the dangers arising from ionising radiation. These standards have been implemented through a series of Basic Standards Directives (“**BSS Directives**”) the most recent of which¹⁷ had to be implemented into the

¹⁴ <https://www.gov.uk/government/news/government-commits-to-continue-funding-its-share-of-europes-flagship-uk-based-nuclear-fusion-research-facility>

¹⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/642542/Science_and_innovation_paper.pdf

¹⁶ <https://www.euro-fusion.org/2016/06/eurofusion-and-uk-after-brexite/>

¹⁷ Council Directive 2013/59/EURATOM

domestic law of Euratom Member States by 6 February 2018¹⁸. The key UK legislation which implements this most recent BSS Directive into UK law includes:

- the Ionising Radiations Regulations 2017¹⁹;
- the Radiation (Emergency Preparedness and Public Information) Regulations 2001²⁰,²¹;
- the Justification of Practices Involving Ionising Radiation Regulations 2004²²; and
- the Radioactive Contaminated Land (Modification of Enactments) Regulations 2006²³,²⁴

At the point the UK formally leaves Euratom, the BSS Directive will cease to have legal effect. The legislation outlined above, however, will remain in place. Whilst the UK Government may make subsequent amendments to the radiation protection regime in the UK post-Brexit, any future regime seems unlikely to change substantially given that the BSS Directive was itself ultimately based on international standards which will remain applicable to the UK²⁵ after Brexit. However, under the “dualist” principle of UK law, obligations arising under or pursuant to Treaties entered into by the UK are not directly part of UK law and cannot be relied on in the courts until transposed into domestic law.

Article 37 of the Euratom Treaty

Article 37 of the Euratom Treaty requires Member States to submit 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*.

The requirement for an operator to obtain a positive opinion from the European Commission panel of experts pursuant to Article 37 is not directly transposed into UK law, but is instead stated in regulatory guidance²⁶ as a prerequisite for the grant of a radioactive substances activity permit²⁷ for a new nuclear facility.

In its recent guidance to industry on a ‘no deal Brexit’ the UK Government has suggested that, whilst the Article 37 obligation will fall away, the UK will continue to consult with stakeholders on any future measures to keep neighbouring states informed of these types of activity in the UK that will apply after Brexit. The mechanisms referred

¹⁸ Article 106 of Council Directive 2013/59/EURATOM

¹⁹ <http://www.legislation.gov.uk/ukxi/2017/1075/contents/made>

²⁰ In the Government consultation on transposing the requirements of the BSS Directive into UK law the UK Government proposed replacing REPPiR with a new set of regulations. A draft set of replacement regulations has not yet been published.

²¹ <https://www.legislation.gov.uk/ukxi/2001/2975/contents/made>

²² <http://www.legislation.gov.uk/ukxi/2004/1769/contents/made>

²³ Separate regulations apply to England, Scotland and Wales

²⁴ <http://www.legislation.gov.uk/ukxi/2006/1379/contents/made>

²⁵ The International Commission on Radiological Protection's approved recommendations, including the 2007 revisions to ICRP Publication 60 and the 2011 revisions relating to the dose limit for the lens of the eye and the Basic Safety Standards of the International Atomic Energy Agency

²⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69503/pb13632-ep-guidance-rsr-110909.pdf

²⁷ under [the Environmental Permitting \(England and Wales\) Regulations 2016](#)

to could include the UK's post Brexit environmental impact assessment regime, which will have to incorporate the principles of transboundary environmental impact assessment as required under relevant international treaties, such as the UNECE Convention on Environmental Impact Assessment in a Transboundary Context²⁸.

Investment

Articles 41 and 43 of the Euratom Treaty require operators with plans for certain investments²⁹ to report³⁰ their plans to the European Commission. The requirement to notify the European Commission under these articles is not implemented into UK law. In its recent guidance to industry on a 'no deal Brexit' the UK Government has confirmed that EU regulations which set out the scope and content of Article 41 submissions will be repealed from UK law.

Supplies

Arguably one of the more significant impacts of withdrawal from the Euratom Treaty is the impact on the supply of *ores, source materials and special fissile materials*³¹.

Chapter 6 of the Euratom Treaty provides that the supply of such materials must be ensured by means of a common supply policy based on the principle of equal access to sources of supply³². It also establishes the Euratom Supply Agency ("**ESA**") which has a right of option³³ on all such materials produced in the territories of Member States which includes:

- a right for the ESA to use or consume special fissile materials owned by the Community pursuant to Article 86 Euratom; and
- a right for the ESA to acquire full ownership rights in all other cases i.e. *ores* and *sources* (which are not defined as *special fissile material* under Article 197 Euratom and therefore outside the scope of Euratom's automatic right of ownership under Article 86).

In practice the ESA's right of option over ores, source materials and special fissile materials is exercised through the 'simplified procedure' whereby supply contracts are negotiated directly between supplier and end-user before being counter-signed by the ESA (if such contracts are deemed to comply with the requirements of Chapter 6 of the Treaty (including the EU's common supply policy))^{34, 35}.

²⁸ <https://www.unece.org/env/eia/eia.html>

²⁹ The type of investments that require notification are defined in Council Regulation (Euratom) 2587/1999 and include the concentration of uranium ores, the chemical processing and refining of uranium concentrates and the production of enriched uranium

³⁰ The required content of these reports is set out in Commission Regulation (EC) 1209/2000.

³¹ The Euratom Treaty defines this term in Article 197 as including enriched uranium or any substance containing enriched uranium which means that radioactive waste and spent fuel containing Uranium 235 or Uranium 233 would also be caught by the definition.

³² Article 52(1) of the Euratom Treaty

³³ Article 57 of the Euratom Treaty

³⁴ Article 57(2) of the Euratom Treaty

³⁵ Supply contracts of more than 10 years' duration also require the approval of the European Commission under Article 60 of the Euratom Treaty.

When the UK leaves Euratom on 29 March 2019 the ESA's right of option over ores, source material and special fissile material and Euratom's right of ownership of special fissile materials under the Euratom Treaty, will cease. As outlined above, if the UK and the EU enter into the Withdrawal Agreement, then the UK will remain subject to the requirements of the Euratom Treaty (including Chapter 6) until the end of December 2020. In this scenario the UK would also remain bound by the terms of the Withdrawal Agreement during this period, the current draft of which reserves the following rights in relation to Euratom owned³⁶ special fissile materials present in the UK on 29 March 2019³⁷:

- the right for Euratom to require such materials are deposited with the ESA; and
- the right for Euratom to approve the sale or transfer of such materials to any person or undertaking established in the UK or another Third State before that sale or transfer takes place.

Although Euratom has not historically required similar rights in relation to Euratom owned special fissile materials in other third states, the export of such materials from Euratom would ordinarily have been authorised by the EU under Article 62 of the Euratom Treaty and the supply contract counter-signed by the ESA under Article 64 thus enabling those entities to exercise their respective rights in relation to the material before it was exported. It is therefore possible that Euratom has insisted on these additional rights in recognition of the fact that after Brexit it would lose control over UK based materials without the chance to exercise control, which could compromise its primary duty to ensure that all users in Euratom receive a regular and equitable supply of ores and nuclear fuels³⁸. In the event of a 'no deal Brexit' the ESA would not have any rights over such materials which would, by default under UK law, become the property of the Euratom based entities with the rights of use and consumption under the Euratom Treaty.

After Brexit, the UK will become a 'third state' for the purposes of Chapter 6 of the Euratom Treaty, meaning it will be governed by the provisions of Section 3 relating to supplies coming from outside the Euratom Community. The UK Government has confirmed that existing supply contracts from UK suppliers to EU based end-users, which were approved by the ESA prior to Brexit and are not due to expire before the UK withdraws from Euratom, may have to be re-approved by the ESA³⁹ after Brexit to recognise the UK's transition to third state status.

The position on supply contracts entered into after Brexit remains unclear⁴⁰. There is obviously some uncertainty as to whether the UK will enter into any agreements with the Euratom Community in relation to post-Brexit supplies to Euratom Member States and if so, what the terms of such agreements will be. It seems unlikely, however, that UK suppliers will avoid the requirement for ESA approval of supply contracts involving end-users established in Euratom Member States⁴¹, meaning that the fundamental principles

³⁶ Member States or entities established in Member States, have the unlimited right of use and consumption of special fissile materials they have properly in their possession subject to the obligations imposed on them by the Euratom Treaty.

³⁷ Article 79 of the draft Withdrawal Agreement.

³⁸ Article 2(d) of the Euratom Treaty.

³⁹ <https://www.gov.uk/government/publications/civil-nuclear-regulation-if-theres-no-brexit-deal/civil-nuclear-regulation-if-theres-no-brexit-deal#nuclear-cooperation-agreements>

⁴⁰ Such contracts are deemed future trade arrangements so will be dealt with as part of the Future Trade Agreement between the UK and the EU.

⁴¹ In practice this will depend on the agreements reached between the EU and the UK as part of the Future Trade Agreement.

of equal access and security of supply, are likely to continue to apply⁴². Furthermore, under the new provisions applicable to third states, the ESA could legitimately refuse requests from Euratom Member States for supplies from UK based suppliers in favour of those based in Euratom Member States, where such supplies could be sourced from within Euratom on equally favourable terms⁴³. For post-Brexit supplies to other 'third states' the provisions of Chapter 6 of the Euratom Treaty (including the EU's Common Supply Policy) will cease to apply.

Euratom Safeguards

The Euratom Treaty has established a system of nuclear safeguards aimed at ensuring that ores, source materials and special fissile materials in the territories of Euratom Member States are not diverted from their declared use.

Commission Regulation (Euratom) 302/2005 requires nuclear operators in the Euratom Community to communicate the basic technical characteristics of their installations to the European Commission via their national nuclear regulatory authorities. Operators are also required to maintain high standards of materials accountancy and control and open their facilities to independent verification activities by the European Commission, which can include real time monitoring and physical inspections.

As well as Euratom Safeguards the UK is also subject to a complementary international safeguards regime administered by the IAEA pursuant to the Treaty on the Non-Proliferation of Nuclear Weapons ("**NPT**") and its associated agreements. Although most non-nuclear weapons states under the NPT are subject to a comprehensive safeguards agreement with the IAEA, the requirements of which are broadly similar to Euratom Safeguards, nuclear weapons states such as the UK and France are not subject to any mandatory safeguards obligations.

In order to address concerns that non-nuclear weapons states would be subject to a significant commercial disadvantage, the UK (in common with other nuclear weapons states under the NPT) volunteered to accept IAEA safeguards on its nuclear facilities in the form of a Voluntary Offer Safeguards Agreement ("**VOSA**").

When the UK leaves the Euratom Treaty, the Euratom Safeguards regime will cease to apply. As the UK's existing VOSA is a tripartite agreement with the IAEA and Euratom, it will also be rendered obsolete. The UK has agreed a replacement, bilateral VOSA with the IAEA and has passed a new UK Safeguards Act which extends the legal authority of the Office for Nuclear Regulation ("**ONR**") to administer a UK safeguards regime and empowers the Secretary of State to pass regulations.

The ONR has stated that the UK will be able to honour its obligations in its replacement, bilateral VOSA with the IAEA by 29 March 2019 but the UK Government's stated objective of replicating Euratom Safeguards will not be achieved until the end of the transitional period on 31 December 2020. In the event of a 'no deal Brexit' where there is no transitional period the UK would have failed to honour its earlier commitments to match the requirements of the Euratom Safeguards Regime.

⁴² See for example a recent dispute between the EU and Hungary in relation to the renewal of a nuclear fuel supply contract for PAKS.

⁴³ Article 65 of the Euratom Treaty

Negotiating bilateral Nuclear Co-operation Agreements (“NCAs”) with nuclear trading partners

When the UK leaves Euratom it will no longer be able to use Euratom’s NCAs which are contingent on the application of Euratom Safeguards. To ensure the UK avoids any significant cliff-edge effects when leaving Euratom, the UK Government would ideally ensure that NCAs are in place with all of its international nuclear trading partners by 29 March 2019. The UK Government has prioritised the agreement of replacement, bilateral NCA’s with the USA, Canada, Australia and Japan on the basis that the domestic law or policy of these countries requires such agreements to be in place to allow the continuation of international nuclear trade and collaboration after Brexit. As at the time of writing the position is that the NCA with the USA was signed on 4th May 2018 and was approved by US Congress in August; the NCA with Australia was signed on 21st August and is due to complete ratification by Australia on 6th December; the NCA with Canada is due to be signed in October and to complete Canadian ratification ahead of March 2019; as regards Japan, the UK has had a bilateral NCA in place with Japan since 1998 and the UK and Japan are putting in place arrangements to ensure that this NCA remains operable following the UK’s withdrawal from Euratom. All the new NCAs (and IAEA Agreements) are intended to be presented to the UK Parliament for ratification later in 2018 to ensure they can enter into force in March 2019 if required.

The UK Government has confirmed that nuclear trade and collaboration will continue with other international trading partners by way of Government to Government assurances until a replacement NCA can be agreed⁴⁴.

The Nuclear Common Market

The Euratom Treaty prohibits:

- all customs duties on imports and exports or charges having equivalent effect, and all quantitative restrictions on imports and exports of certain products listed in Annex IV to the Euratom Treaty which includes uranium ores, enriched uranium and equipment for the separation of uranium isotopes; and
- any restrictions affecting the rights of nationals of any Member State to take skilled employment in the field of nuclear energy subject only to limitations resulting from basic requirements of public policy, public security or public health.

Whether or not the UK retains access to the nuclear common market is likely to be decided as part of the wider Brexit negotiations on the UK’s access to the Single Market as a whole.

If the UK does not remain in the Single Market then Euratom Member States will no longer be subject to the prohibitions listed above in relation to post-Brexit trade with the UK. The impact of this will then ultimately depend on the terms of any bi-lateral trade agreements entered into between the UK and the EU and/or the UK and each Euratom Member State.

⁴⁴https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/717194/euratom-exit-factsheet-nuclear-cooperation-agreement.pdf

Medical Radioisotopes

Medical radioisotopes do not fall within the definition of special fissile materials in the Euratom Treaty. As such they are not subject to safeguards or Euratom's rights of ownership.

Medical Radioisotopes are, however, covered by the following Euratom provisions:

- The health and safety provisions in Chapter 3 i.e. basic safety standards and radiation protection. There is also a separate Euratom Directive on High Activity Sealed Sources (2203/122/Euratom). The existing EU regulations and UK implementing legislation will become/remain part of UK law after Brexit.
- R&D – methods of isotope separation are included as recognised fields of research in Annex I; and
- Nuclear common market – artificial radioactive isotopes are a list A2 good (Annex IV) meaning they are caught by Article 93 of the Euratom Treaty regarding free movement of nuclear goods. The UK could therefore see increased tariffs on radioisotopes imported from Europe, subject to any restrictions established during negotiations, or failing that, existing WTO arrangements on import tariffs. The short half-lives of medical radioisotopes (which can be as little as 6 hours) means that any customs delays from wider Brexit impacts could have serious implications.

Although medical radioisotopes are not caught by Chapter 6 of the Euratom Treaty the ESA does have a role in chairing the European Observatory on the Supply of Medical Isotopes, which since 2013, has been working to improve security of supply for EU members in relation to medical isotopes, principally by trying to establish supplies of HEU for this purpose from the US. In its Brexit White Paper the UK Government has expressed its preference for the UK to continue cooperation and information sharing with the European Observatory on the Supply of Medical Isotopes. Whether or not the EU accepts the UK Government's proposal the UK would remain a member of the Nuclear Energy Agency's⁴⁵ High Level Group on the Security of Supply of Medical Isotopes after Brexit.

Export Controls

The UK is currently subject to the EU Regulation 428/2009 known as the "**Dual-Use Regulation**". Ultimately the UK's export control regime is governed by the NPT and the Nuclear Suppliers Group Guidelines meaning that Brexit should not cause any substantive changes.

It is possible, however, that there may be more indirect effects:

- The current process for the movement of Category 0 items (movements of nuclear fuel and components, systems, technology and information) between Euratom Member States is straightforward with government to government assurances allowing governments to sign licences on behalf of their counterparty. The UK will lose this facility when it leaves Euratom, unless agreed otherwise.

⁴⁵ The Nuclear Energy Agency is a specialised agency within the Organisation for Economic Co-operation and Development.

- Also licences are not currently required for categories 1-9 when transferring applicable goods within the Euratom Community.
- Euratom based suppliers also benefit from a number of open licences from other export control authorities which the UK will no longer benefit from after Brexit. One such example is an open licence issued by the Nuclear Regulatory Commission (“**NRC**”) in the US to all Euratom suppliers in relation to used UF6 cylinders. In this example US based companies exporting to the UK after Brexit would have to seek their own consent from the NRC.

The UK Government has confirmed informally that it will seek to replicate at least the EU elements of the existing export control regime when it agrees a new framework with the EU after Brexit.

External relations

Under Article 103 of the Euratom Treaty the UK is currently obliged to seek Euratom Community approval of any agreements it enters into with third states including any bi-lateral co-operation agreements.

Post Brexit any agreements with Euratom Community members will remain subject to the approval of the Euratom but agreements with other ‘third states’ such as China or the USA, will not require such approval.

Transfrontier movement of wastes

The relevant UK Regulations are the Transfrontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008 (“**the TSR**”). These are administered by the Environment Agency in England, the Scottish Environment Protection Agency in Scotland, Natural Resources Wales in Wales, and the Northern Ireland Environment Agency in Northern Ireland. The TSR implement Council Directive 2006/117/Euratom on the Supervision and Control of Shipments of Radioactive Waste and Spent Fuel. The standard document required by the Directive is established by Commission Decision 2008/312/Euratom. Criteria for the export of radioactive waste and spent fuel to third countries from the Euratom Community are provided by Commission Recommendation 2008/956/Euratom. The Directive distinguishes between intra-community shipments (where the country of origin and of destination are both Euratom Member States) and extra-community shipments (where the country of origin and/or destination are ‘third states’).

The Recommendation makes clear that it is for the competent authority of the Member State of export to form an opinion on the administrative and technical capacity of the state of destination to manage the waste safely, as well as the appropriateness of their regulatory structures. Article 1 sets out detailed criteria for making this judgment. Article 2 sets out specific “leading criteria” including signature and ratification of relevant Conventions and “submission of spent fuel facilities to an IAEA safeguards agreement”. Other considerations, for example regarding political, economic, social, ethical, scientific and public security matters, may also be taken into account under Article 3. The Commission Staff Working Document SWD(2013) 150 Final (24 April 2013) indicates that the number of applications is relatively small and is mainly shipments between Member States. Only one case was noted of refusal of consent, where Belgium refused an import of waste from the UK for incineration on the basis that no formal government agreement was in place for treatment of the waste in Belgium and the consignee was not registered

as an importer of radioactive waste from the UK. The later Commission Staff Working Document SWD(2018) 4 Final (19 January 2018) indicates that five Member States (Sweden, Germany, France, the UK and Belgium) account for 74% of reported authorisations in the period 2012-2014. Again, most are shipments between Member States. The UK is noted as having authorised exports to two non-member countries (Switzerland and Japan) by way of return of reprocessed material. Numbers of refusals remain small, mainly involving contaminated scrap metal. It notes that over the reporting period the UK carried out one shipment of vitrified High Level Waste from Sellafield to Switzerland, as well as long-standing shipments of metallic wastes from nuclear decommissioning to Sweden and Germany, and waste for incineration.

The effect of withdrawal from Euratom will be that the UK will cease to be a Member State and for the purposes of the Directive will become a third country. One immediate implication of this will be that the UK Regulations will no longer be workable, as they are predicated on Member State status, and will need to be re-written before withdrawal in order to provide legal continuity, presumably using powers in the Withdrawal Act. In terms of Euratom law, assuming an absence of any agreed specific arrangements, existing consents (which may run for up to three years) will no longer be valid.

In the case of export from the UK to Euratom Member States, the authorisation will have been granted by the UK competent authority, whereas under the Directive it will have to be granted by the competent authority of the Member State of destination. Further, there is the additional requirement of evidence as to arrangements for taking back waste or spent fuel in the event of uncompleted shipments, which is required in the case of import from third countries.

In the case of import into the UK from Euratom Member States, the authorisation will now have to be subject to the criteria in the Recommendation for export to third countries. The country of origin's competent authority will have to satisfy itself that the UK meets the relevant criteria, which notably include ratification of the list of international conventions and the existence of a compliant IAEA safeguards system. Therefore, assuming no transitional arrangements are made, if disruption of movement is to be avoided, new authorisations will need to be applied before in sufficient time before exit from Euratom.

For export from the UK into the community, the consignor (not the UK competent authority) will need to apply to the competent authority of the Member State of destination, which will need to seek consent on any Member States of transit. It would also have to be established that the relevant competent authority is willing to entertain and deal with an application made in anticipation of the UK ceasing to be a Member State. For import into the UK, the holder will have to apply to the competent authority of the Member State of export, which will have to seek consent of the UK and the states of transit if any. The authorisation will depend on the State of Export being satisfied that the relevant criteria are met. Again, adequate time will have to be allowed for this. An acceptable IAEA safeguards regime will have to be in place before authorisation can be granted. Again, it would also have to be established that the relevant competent authority is willing to entertain and deal with an application made in anticipation of the UK ceasing to be a Member State. It is also the case that the exporting Member State will have to ensure that the arrangements in the UK provide an equivalent level of safety to those required by the Framework Directive. This ought not to be problematic to fulfil, but will take additional time.

Return of fuel after reprocessing

The Government has expressed the view that exit from Euratom should not affect the right of the UK to return radioactive material (or its agreed equivalent) after reprocessing to the country of origin, in accordance with Article 2(4) of the Framework Directive, referred to at paragraph 18 above.⁴⁶ It would in fact be more accurate in this regard to refer to Article 2 of the Directive on shipment rather than Article 2(4) of the Framework Directive. However, in any event this overlooks the fact that both Article 2 of the Directive and Article 2(4) of the Framework Directive apply for the benefit of Member States, and the UK will no longer be a Member State. This right will therefore have to be expressly addressed in any ongoing arrangements with Euratom if the UK is to continue to benefit from it as regards shipments into or through Euratom territory.

The Future Trade Agreement

The basis of the UK's relationship with Euratom has been the subject of much debate with some commentators suggesting that an Association Agreement under Article 206 of Euratom Treaty was the only existing route which would allow the UK to fulfil its objective of maintaining the *closest possible relationship* with Euratom after Brexit. Although the Euratom Community has never entered an Association Agreement with a third state, the EU has entered a number of different types of Association Agreements under Article 217 of the Treaty on the Functioning of the European Union⁴⁷.

Although an Association Agreement with Euratom would certainly appear to offer the opportunity for the UK to maintain a relationship with Euratom after Brexit that was only marginally short of full membership, the obligations that Euratom and the EU are likely to insist on could well be politically unacceptable to the UK Government. By way of example, a relationship with Euratom that is only marginally short of full membership is only likely to be acceptable to Euratom and the EU if it does not undermine the integrity of the Single Market, which means access is likely to come with commensurate requirements to adhere to Euratom rules and regulations and accept the jurisdiction of the CJEU. Remaining subject to EU rules and regulations and the jurisdiction of the CJEU have been negotiation red lines for the UK Government since the beginning of its Brexit negotiations.

A further drawback of an Association Agreement with Euratom is that such agreements require unanimous approval by the European Council after consultation with the European Parliament⁴⁸. Furthermore, because energy is a shared competence between the EU and its Member States⁴⁹ any Association Agreement which Euratom were to enter with the UK is likely to be a "mixed agreement" which must be signed and ratified both by the EU and each individual Member State in accordance with its own individual, constitutional requirements. The recently ratified free trade agreement between the EU and Canada took almost a decade to negotiate but nearly failed at the last hurdle because a Belgian regional government in Wallonia representing just 3.6 million people (0.7% of the EU population) rejected the agreement demanding stronger safeguards on labour, environmental and consumer standards. Such an approval process can be extremely lengthy and although such an agreement could be provisionally applied⁵⁰ before formal

⁴⁶ HM Government, Nuclear materials and safeguards issues, Position Paper (2018), para. 18

⁴⁷ See for examples the so called Deep and Comprehensive Free Trade Area agreements the EU has entered into with Ukraine, Georgia and Moldova or the Stabilisation and Association agreements it has entered into with Western Balkan states.

⁴⁸ Article 206 of the Euratom Treaty

⁴⁹ Article 4 of the Treaty on the functioning of the European Union

⁵⁰ One the European Parliament has given its consent to the ratification of a mixed free trade agreement it can confirm that the agreement should be provisionally applied pending ratification by EU Member States. Provisional application allows

ratification, it remains possible that an anti-nuclear EU Member State, or another Member State pursuing its own Brexit agenda, could effectively veto the agreement⁵¹.

The UK Government's Brexit White Paper

On the 12 July 2018 the UK Government published its long awaited White Paper outlining its preferred future relationship with the EU (and Euratom) after Brexit. The White Paper sets out the UK Government's preference for a new, civil nuclear relationship with Euratom to be based on an NCA. The White Paper confirms that this new relationship should be "*more comprehensive and broad than any existing agreement between Euratom and a third country*" which should:

- Establish a co-operation mechanism between the ONR (as the new competent authority for nuclear safeguards in the UK) and Euratom to enable the exchange of technical information, joint studies and consultation on regulatory or legislative changes;
- Provide UK association with the Euratom Research and Training Programme;
- Ensure continuity of contractual arrangements for the supply of nuclear material either by allowing for existing nuclear supply contracts with the UK to remain valid or by providing for their seamless re-approval prior to Brexit;
- Minimise barriers and simplify export control arrangements in the trade and transfer of sensitive nuclear materials, equipment and technology between the UK and the Euratom Community;
- Provide for technical co-operation on nuclear safety, with the UK participating in EU systems such as the European Community Urgent Radiological Information Exchange and the European Radiological Data Exchange Platform; and
- Continue UK co-operation and information-sharing with the European Observatory on the Supply of Medical Isotopes.

The UK Government has confirmed that its rationale for proposing an NCA as its preferred model for its future relationship with Euratom, as opposed to an Association Agreement, is that NCA's will be familiar to Euratom⁵² and carry the added benefit of European Council approval by a qualified majority⁵³ rather than the unanimous approval and reference to the European Parliament required for Association Agreements⁵⁴. A possible problem with this approach is that in broadening the scope of the NCA the agreement begins to cover areas of shared competence in which case the EU may view

EU citizens entrepreneurs and companies to promptly benefit from the opportunities trade agreements offer without having to wait for ratification by each EU Member State which can a number of years.

⁵¹ Although it should be noted that the ability for individual Member States to act alone in this way could be affected by its mutual legal obligation of sincere co-operation laid down in Article 4(3) of the TEU which provides that "*the Union and the Member States shall, in full mutual respect, assist each other in carrying out tasks which flow from the Treaties. ... The Member States shall ... refrain from any measure which could jeopardize the attainment of the Union's objectives.*"

⁵² Although Article 206 of the Euratom Treaty provides that the Community may conclude association agreements "*involving reciprocal rights and obligations, common action and special procedures*" no such agreements have ever been concluded under the Euratom Treaty. On the other hand Euratom has entered a number of NCAs with third countries such as the US, Canada and Australia.

⁵³ Article 101 of the Euratom Treaty

⁵⁴ Article 206 of the Euratom Treaty

the NCA with the UK as a “mixed Agreement” requiring the approval process outlined above.

The UK Government has also (informally) confirmed that the Nuclear Common Market elements of the Euratom Treaty will be addressed as part of its wider negotiations with the EU around future trade arrangements. In its Brexit White Paper the UK Government has proposed an Association Agreement⁵⁵ as its preferred model for this future trade relationship meaning that the terms of the UK's future relationship with the nuclear common market will be subject to the approval of each EU Member State in accordance with its own individual, constitutional requirements.

Conclusions

The UK Government has worked closely with the UK and European nuclear industries to understand the implications of leaving the Euratom Community. Since March 2017 the UK Government has agreed the necessary arrangements with the EU in the draft Withdrawal Agreement, to ensure that the UK's exit from Euratom has minimal impact on the UK's international nuclear trade and collaboration.

The impact of Brexit on the UK, EU and global nuclear sectors now depends on the UK and EU completing the Withdrawal Agreement which will secure an orderly withdrawal for the UK from the EU and Euratom over a 21 month period between the 29 March 2019 and 31 December 2020, rather than a hard exit on 29 March 2019.

Whilst being fully committed to negotiating the draft Withdrawal Agreement, the UK Government has remained cognisant of the fact that other, wider Brexit issues such as the Northern Ireland border, may still precipitate a 'no deal Brexit'. To mitigate the impact of this potential scenario the UK Government has been working in parallel to establish a number of baseline contingencies to minimise any impact on international trade and nuclear collaboration with Euratom and other third states such as the US, Canada, Australia and Japan.

With time running out and political pressure mounting on the UK Government, it is extremely difficult to predict whether or not agreement can be reached or what, if any, temporary fix can be agreed to avoid potentially harmful cliff edge effects when the UK leaves Euratom on 29 March 2019.

⁵⁵ Under Article 217 of the Treaty on the Functioning of the European Union