

## Brexit, Euratom and nuclear proliferation

by Anna Södersten\*

### 1. Introduction

One of the issues absent from the academic (and public) debate on the United Kingdom's (UK) referendum vote to withdraw from the European Union (EU) (commonly referred to as "Brexit") is what will happen to the UK's membership in the European Atomic Energy Community (Euratom). The Euratom Treaty was signed in Rome in 1957,<sup>1</sup> together with the European Economic Community (EEC) Treaty.<sup>2</sup> It was concluded for an unlimited period and it establishes a Community that has a separate legal personality from the EU. Thus, the EU and Euratom form two separate, although closely linked entities.

Euratom's principal mission is related to the economy, tasked with "creating the conditions necessary for the speedy establishment and growth of nuclear industries";<sup>3</sup> in other words, to promote the nuclear industry. This reflects the high expectations for nuclear energy in the 1950s. Some even believed that the development of nuclear energy would trigger an industrial revolution; however, Euratom only came to play a minor role in the European integration process. Despite this, the Euratom Treaty has remained, almost unchanged, since its adoption<sup>4</sup> and is still frequently applied, although it is unclear to what extent it has boosted the nuclear industry.

This article has a two-fold purpose. The first purpose is to address the constitutional issue of "partial membership". All EU member states are also members of Euratom. It has always been assumed that with membership in the EU also comes a membership in Euratom. But, what about withdrawal? What are the arguments for "partial membership"?

The second purpose of this article is to shed light on some implications of Brexit as it relates to Euratom. The most serious consequences are perhaps found in the

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\* Jur. Dr. Anna Södersten is a Lecturer of Law at Uppsala University, Sweden. In 2014, she received her doctoral degree in law from the European University Institute, Florence. Her thesis was titled *Euratom at the Crossroads*. Dr. Södersten is the editor of *A Companion to European Union Law and International Law* (Wiley Blackwell, 2016) and the former Associate Editor of the *International Journal of Constitutional Law*.

1. Treaty Establishing the European Atomic Energy Community (1957), 298 UNTS 167, entered into force 1 January 1958 (Euratom Treaty) (consolidated version *Official Journal of the European Union* (OJ) C 203 (7 June 2016)).
2. Treaty Establishing the European Economic Community (1957), 298 UNTS 11, entered into force 1 January 1958 (EEC Treaty or Treaty of Rome).
3. Euratom Treaty, *supra* note 1, Article 1.
4. Euratom's activities are listed in Article 2 of the Euratom Treaty. Euratom shall, *inter alia*, promote research, disseminate information, establish uniform safety standards for the protection of workers and the general public, facilitate investment, ensure the supply of ores and nuclear fuels, make certain that nuclear materials are not diverted to purposes other than those for which they are intended, create a nuclear common market, and establish relations with countries and international organizations as will foster progress in the peaceful uses of nuclear energy.

area of nuclear non-proliferation. The United Kingdom is one of two nuclear weapon states in the EU (France being the other one). Withdrawal from Euratom means withdrawal from its control system, the system of so-called nuclear safeguards. Under this system, the European Commission sends inspectors to the member states to ensure that nuclear material is not being diverted and used for military purposes.

This article begins, in Part 2, by exploring the possibility for the United Kingdom to stay a member of Euratom, while leaving the EU. Part 3 examines the implications of Brexit in the area of nuclear industrial development – the main task of Euratom. The article addresses Brexit and non-proliferation in Part 4 and concludes in Part 5.

## 2. Brexit: A full exit or a possibility for partial membership?

There are different legal options as to the future relationship between the United Kingdom and the European Union.<sup>5</sup> The UK government has recently announced its intentions in this regard.<sup>6</sup> In addition, the UK government has also recently announced that it will leave Euratom as well.<sup>7</sup> This means that special “Euratom solutions” must be crafted. But, when it comes to Euratom, there is an even more fundamental question that must first be addressed: Does exit from the EU automatically mean withdrawal from Euratom? Or, is it legally possible for the UK to withdraw from the EU, but stay in Euratom?

### a. *Withdrawal from the European Union*

Euratom and the European Community<sup>8</sup> have always shared the same institutions, but the Communities had separate sets of institutional provisions. Just like the EC, Euratom was long lacking a withdrawal clause and the possibility of exit was unclear. This changed when the Lisbon Treaty came into force in 2009.<sup>9</sup> The EU<sup>10</sup> now contains a withdrawal clause: Article 50 of the TEU states that “Any Member State may decide to withdraw from the Union.” In order to “trigger” Article 50, the UK must notify the European Council and a withdrawal agreement shall be crafted. The EU Treaties<sup>11</sup> shall cease to apply to the United Kingdom two years after the

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5. The legal options available include the United Kingdom becoming a European Economic Area (EEA) member, becoming a European Free Trade Association (EFTA) member and negotiating a free trade and association agreement with the EU. Piris, J-C (2015), “Should the UK Withdraw from the EU: Legal Aspects and Effects of Possible Options”, *European issues*, No. 355, available at: [www.robert-schuman.eu/en/doc/questions-d-europe/qa-355-en.pdf](http://www.robert-schuman.eu/en/doc/questions-d-europe/qa-355-en.pdf).
  6. See Department for Exiting the European Union and The Rt Hon David Davies MP (2017), “The United Kingdom’s exit from and new partnership with the European Union White Paper”, available at: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/589191/The\\_United\\_Kingdoms\\_exit\\_from\\_and\\_partnership\\_with\\_the\\_EU\\_Web.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/589191/The_United_Kingdoms_exit_from_and_partnership_with_the_EU_Web.pdf).
  7. See *ibid.*, para. 8.30.
  8. Originally the European Economic Community (EEC), the EEC was renamed the European Community (EC) upon the entry into force of the Treaty on European Union, OJ C 191 (29 July 1992), entered into force 1 November 1993 (TEU or Maastricht Treaty) (consolidated version OJ C 202/13 (7 June 2016)).
  9. Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community, signed at Lisbon, 13 December 2007, OJ C 306 (17 December 2007), entered into force 1 December 2009 (Lisbon Treaty).
  10. Following the Lisbon Treaty, the EC became the EU. Euratom remains as a separate entity.
  11. The so-called “EU Treaties” are the TEU and the Treaty on the Functioning of the European Union, OJ C 115/47 (9 May 2008) (consolidated version) (TFEU) (consolidated version OJ C 202/47 (7 June 2016)).

notification to the European Council.<sup>12</sup> The Brexit referendum took place in June 2016, and the UK government has announced it will trigger Article 50 by the end of March 2017.<sup>13</sup>

### **b. Withdrawal from Euratom**

The Lisbon Treaty repealed the institutional provisions of the Euratom Treaty and replaced them with a reference to the institutional provisions in the EU Treaties.<sup>14</sup> One of the provisions that applies to the Euratom Treaty is Article 50 of the TEU.<sup>15</sup> Consequently, the same provision that is used for withdrawal from the EU can be used for withdrawal from Euratom. But, while the withdrawal clause applies to Euratom, there is nothing that prevents “partial membership”, i.e. withdrawal from only the EU or from only Euratom. The EU Treaties do not mention Euratom and the only link between the EU Treaties and the Euratom Treaty is found in the earlier mentioned Euratom Treaty Article 106a, which incorporates certain institutional provisions in the EU Treaties to Euratom. Therefore, the conclusion must be that Euratom and the EU are separate entities with separate legal personalities, although closely linked through the shared institutional framework.

Of course, one may object to this conclusion and say that prior to the Lisbon Treaty, it would not have been possible to withdraw from only the EC or only the EU, although they could have been seen as separate “entities”. In the (for EU law scholars) well-known Kadi case, the Court of Justice of the European Union (CJEU) stated that the EU and the EC formed two “integrated but separate legal orders”.<sup>16</sup> Consequently, why would it be possible to withdraw from the Euratom Treaty when it was not possible to withdraw from only the EU (and stay as a member of the EC)? One answer is that prior to the Lisbon Treaty, the EU lacked an express legal personality. Moreover, some argued that the EU was itself a weak legal entity; some viewed it merely as a “nominal framework for inter-state cooperation without any legal existence of its own”.<sup>17</sup> Leaving this EC/EU comparison aside, it is perhaps more important to point to the fact that the Euratom Treaty is a sectoral treaty with a separate set of objectives and that it is still “functional” in nature. Unlike the TEU, the Euratom Treaty does not contain values and the individual is not at “the centre

12. This timeline applies unless the European Council, in agreement with the United Kingdom, unanimously decides to extend this period.

13. On 1 February 2017, the Members of Parliament in the House of Commons voted 498 to 114 in favour of triggering Article 50. See BBC (2017), “Brexit: MPs overwhelmingly back Article 50 bill”, [www.bbc.com/news/uk-politics-38833883](http://www.bbc.com/news/uk-politics-38833883).

14. Article 106a of the Euratom Treaty refers to certain provisions in the TEU and the TFEU that shall apply to the Euratom Treaty.

15. On the EU withdrawal clause, see Tatham, A. F. (2012), “Don’t Mention Divorce at the Wedding, Darling! EU Accession and Withdrawal after Lisbon”, in A. Biondi, P. Eeckhout and S. Ripley (eds.), *EU Law after Lisbon*, Oxford University Press, Oxford, pp. 128-154. See also, Herbst, J. (2005), “Observations on the Right to Withdraw from the European Union: Who are the ‘Masters of the Treaties’?”, *German Law Journal*, Vol. 6, No. 11, pp. 1755-1760; Łazowski, A. (2012), “Withdrawal from the European Union and Alternatives to Membership”, *European Law Review*, Vol. 37, pp. 523-540; and Weiler, J. H. H. (1985), “Alternatives to Withdrawal from an International Organization: The Case of the European Economic Community”, *Israel Law Review*, Vol. 20, pp. 282-298.

16. Joined Cases C-402/05 P and C-415/05 P, Yassin Abdullah Kadi and Al Barakaat International Foundation v. Council of the EU and Commission of the EC, ECLI:EU:C:2008:461, para 202.

17. See de Witte, B. (2001), “Chameleonic Member States: Differentiation by Means of Partial and Parallel International Agreements,” in B. de Witte, D. Hanf and E. Vos (eds.), *The Many Faces of Differentiation in EU Law*, Intersentia, Antwerp, p. 258, who refers to Pechstein, M., and C. Koenig (1998), *Die Europäische Union: Die Verträge von Maastricht und Amsterdam*, 2<sup>nd</sup> ed., Mohr Siebeck, Tübingen.

of its construct”.<sup>18</sup> While the EU has evolved over the years, much due to the development of human rights, this is not the case for Euratom; the EU and Euratom are very different in nature.

This argument on “separate entities” could of course be countered by pointing to the fact that there is now a shared institutional framework. Without the EU’s institutional provisions, Euratom cannot (after the Lisbon Treaty) stand on its own, so the argument goes. Further, one might argue that Article 50 refers to membership of the “Union” and that this is not simply a withdrawal procedure, but a “withdrawal from the Union” procedure. The view defended here, however, is that “partial membership” is legally possible. That is because Euratom Article 106a clarifies that the references to the “Union” in the referenced institutional provisions (inter alia, TEU Article 50), shall be taken as references to Euratom. In other words, Article 50 becomes in this way a “procedure of Euratom”. Strictly speaking, this means that the UK withdrawal notice must specifically mention Euratom if the intention is to leave Euratom as well.<sup>19</sup>

Although legally possible, partial membership would, however, likely create some practical difficulties as Euratom and the EU share the same institutions. The institutions would need a different composition depending on whether it is an issue decided by Euratom or the EU. This could make it more complicated to adopt measures on a joint legal basis, that is, one legal basis in the EU Treaties and one in the Euratom Treaty. And the EU and Euratom have adopted quite a few such instruments.<sup>20</sup> Moreover, a decision to stay as a member of Euratom would likely give rise to objections from the other EU member states. After all, Euratom seems to be regarded as an integrated part of the EU. So, although legally possible, other member states might not see it as desirable for the UK to remain in Euratom. And, of course, the question is also whether it would be desirable for the UK to stay.

### 3. Nuclear industrial development

Almost all of Euratom’s activities (as listed in the Euratom Treaty) revolve around nuclear industrial development. Perhaps paradoxically, when it comes to the nuclear industry, the most important implication of Brexit has to do with the EU rather than Euratom: the application of the EU state aid rules.<sup>21</sup> These rules have, for example, come into play regarding the decision by the UK to provide support for the construction of a new nuclear power plant at Hinkley Point – a decision that has been challenged by Austria and Luxembourg. And further expansion of the

18. See Weiler, J. H. H. (2010), Editorial, “Individuals and Rights: The Sour Grapes”, *European Journal of International Law*, Vol. 21, No. 2, pp. 277-280.

19. A separate question is what the domestic UK law stipulates. The UK’s European Union (Amendment) Act of 2008 states at paragraph 3(2) that: “a reference to the EU in an Act or an instrument made under an Act includes, if and in so far as the context permits or requires, a reference to the European Atomic Energy Community”. One might argue that the European Union Referendum Act 2015 includes Euratom. (“A referendum is to be held on whether the United Kingdom should remain a member of the European Union.” Para. 1(1).)

20. One example is the Community Civil Protection Mechanism, which can be used for all kinds of emergencies, including nuclear accidents and radiological emergencies. Council Decision 2007/779/EC, Euratom of 8 November 2007 establishing a Community Civil Protection Mechanism (recast), OJ L 314 (1 December 2007), p. 9.

21. The core state aid provisions can be found in Articles 107-109 of the TFEU. The European Commission defines states aid “as an advantage in any form whatsoever conferred on a selective basis to undertakings by national public authorities.” European Commission (2016), “State aid control”, [http://ec.europa.eu/competition/state\\_aid/overview/index\\_en.html](http://ec.europa.eu/competition/state_aid/overview/index_en.html) (emphasis in original).

UK nuclear industry is planned. Following Brexit, the EU state aid rules might no longer apply. This means that the United Kingdom might be able to operate a more active industrial policy, but the situation is far from clear. Depending on the future relationship between the United Kingdom and the EU, EU state aid rules might continue to apply, but through another arrangement.<sup>22</sup>

When it comes to the Euratom Treaty, the implications of Brexit are perhaps even less obvious. One implication is that contracts on nuclear material will no longer have to go through the Euratom Supply Agency (ESA).<sup>23</sup> The ESA has an exclusive right to conclude supply contracts.<sup>24</sup> This enables Euratom to balance demand and supply, with an overall objective of EU energy security. In the 1950s, when the treaty was adopted, resources (i.e. nuclear material) were scarce. But, a shortage of nuclear materials has not occurred since then. Consequently, ESA involvement is only a formality. Yet, the ESA has the discretion to refuse to conclude supply contracts, which could run counter to the attainment of Euratom objectives.<sup>25</sup> And indeed, in the recent past, the ESA has refused to sign contracts that would make individual users too dependent on uranium from Russia.<sup>26</sup> Therefore, Brexit means that British nuclear operators will no longer have to deal with this.

Another area that is linked to the development of the nuclear industry is research. Brexit means that the United Kingdom will no longer be a part of the Euratom research programmes. Much more could be said here, but suffice it to say that some kind of association agreements might be carved out, and perhaps there will be a similar construction for general (EU) research.

Finally, it should be mentioned that in practice, Euratom has moved away from its original main task of promoting the nuclear industry. Today, Euratom has a “new rationale”; most of Euratom’s actual activities revolve around nuclear safety. Relatively recently, in 2009 and 2011, Euratom adopted a legal framework in the form of two directives on respectively nuclear safety and nuclear waste.<sup>27</sup> Brexit means that any further amendments of these directives will not affect the

22. For a discussion, see Froggatt, A., T. Raines and S. Tomlinson (2016), “UK Unplugged? The Impacts of Brexit on Energy and Climate Policy”, Research Paper, Europe Programme & Energy, Environment & Resources Department, Chatham House, the Royal Institute of International Affairs, London, p. 17.

23. The Euratom Supply Agency was established under Articles 2(d) and 52 of the Euratom Treaty to ensure a “supply of ores, source materials and special fissile materials” “by means of a common supply policy on the principle of equal access to sources of supply”. Euratom Treaty, *supra* note 1, Article 52(1). The full provisions are outlined in Articles 52-76 of the Euratom Treaty.

24. Euratom Treaty, *supra* note 1, Article 52(2)(b).

25. Case C-357/95 P, Empresa Nacional de Urânio SA (ENU) v. Commission of the European Communities, ECLI:EU:C:1997:144 (“the ENU Case”).

26. Case C-161/97 P, Kernkraftwerke Lippe-Ems GmbH v. Commission of the European Communities, ECLI:EU:C:1999:193 (“the KLE Case”). For the same reason, in 2015, Hungary had to revise its deal with Russia on nuclear material. See, e.g. Byrne, A. and C. Oliver (2015), “Hungary to revise Russia nuclear deal blocked by EU”, *Financial Times*, available at: [www.ft.com/content/d473b86c-c99c-11e4-b2ef-00144feab7de](http://www.ft.com/content/d473b86c-c99c-11e4-b2ef-00144feab7de).

27. Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations, OJ L 172 (2 July 2009) (2009 Safety Directive); Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste, OJ L 199 (2 August 2011) (2011 Waste Directive). For an overview, see, e.g. Södersten, A. (2012), “The EU and Nuclear Safety: Challenges Old and New”, Swedish Institute for European Policy Studies, European Policy Analysis, Issue 2012:10epa.

United Kingdom.<sup>28</sup> But this does not mean that nuclear safety will be put at risk. When the nuclear safety framework was adopted, the main concern was the new member states in Eastern Europe, where nuclear safety was not up to western standards. At it currently stands, the EU nuclear safety framework is not particularly far-reaching; it does not go much further than the international instruments in the field (although there are ongoing discussions to adopt more detailed legally binding technical standards). However, on a symbolical level, Brexit is damaging.

#### 4. Nuclear non-proliferation

When the UK joined the European Communities (the EEC, Euratom and the European Coal and Steel Community) in 1973, it had already developed nuclear weapons. The UK's possession of nuclear weapons was not an immediate obstacle to accession. France, one of the original member states, also had nuclear weapons; therefore, membership could not be denied on this ground. It should also be pointed out that the Euratom Treaty is not a non-proliferation treaty; it does not prohibit the use or production of nuclear weapons. Having said that, one of Euratom's main tasks is to make sure that "nuclear materials are not diverted to purposes other than those for which they are intended".<sup>29</sup> In order to achieve this task, the Euratom Treaty establishes a system of nuclear safeguards.<sup>30</sup>

The Euratom Treaty requires that nuclear operators, for example, give the European Commission information on their facilities.<sup>31</sup> The operators also have to provide information on nuclear material in their possession and they are required to keep and produce operating records. A central aspect of the safeguards system is the use of inspections and the Commission sends inspectors into the territories of member states.<sup>32</sup> In 2014, there were 161 inspectors working for Euratom and 1 234 inspections were carried out.<sup>33</sup> The Euratom Treaty states that "inspectors shall at all times have access to all places and data and to all persons who ... deal with materials, equipment or installations".<sup>34</sup> Their task is to verify that nuclear materials are not diverted from their intended use.

##### a. Purpose of the Euratom safeguards system

When it was established in the 1950s, the purpose of the Euratom safeguards system was to make it possible to import nuclear materials from the United States, the

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28. The 2009 Safety Directive has already been amended once, in 2014. Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations, OJ L 219 (25 July 2014).

29. Euratom Treaty, *supra* note 1, Article 2(e).

30. The safeguards provisions are laid out in Title II, Chapter 7 Euratom. The Commission has two main tasks, which are laid out in Article 77. First, the Commission is to satisfy itself that nuclear materials are "not diverted from their intended uses as declared by the users". Second, it must assure that "any particular safeguarding obligations assumed by the Community under an agreement concluded with a third State or an international organisation are complied with". This reflects the very rationale behind the system: it guarantees its trading parties that the provisions are complied with.

31. Euratom Treaty, *supra* note 1, Article 78.

32. Euratom Treaty, *supra* note 1, Article 81.

33. Of the 1 234 inspections, 216 were carried out in the United Kingdom. EC, Directorate-General for Energy, Directorate E – Euratom Safeguards (2014), Report on the Implementation of Euratom Safeguards in 2014, EC, Luxembourg, p. 5, available at [https://ec.europa.eu/energy/sites/ener/files/documents/20151211%20Annual\\_Report%202014.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/20151211%20Annual_Report%202014.pdf).

34. Euratom Treaty, *supra* note 1, Article 81.

world's then leading supplier of fissile material.<sup>35</sup> The United States required that its exported materials would only be used for civil purposes and that the exports could be tracked. The US therefore imposed unilateral inspection rights in their bilateral agreements.<sup>36</sup> For some, a clause on unilateral inspection rights would equal an infringement of Euratom's sovereignty. But, with a safeguards system in place, such a clause could be avoided; Euratom would have the direct responsibility.

Of course, the Euratom safeguards system was also a way of preventing Germany from developing nuclear weapons; no country of the original six would be able to covertly develop nuclear weapons. The purpose of the Euratom safeguards system is to make sure that nuclear materials are not diverted to purposes other than those for which they are intended. But as mentioned, the Treaty does not prohibit diversion. In fact, the Treaty even explicitly exempts from the safeguards system materials declared for military use.<sup>37</sup> In 2003, the Court of Justice of the European Union (CJEU) also confirmed that nuclear energy for military application falls outside the entire scope of the Treaty. This ruling was the result of an infringement procedure against the UK.<sup>38</sup>

Euratom inspections of nuclear weapon states are especially important because they make the safeguards system credible, which then allows Euratom to guarantee to its trading partners that the conditions on the use of materials are adhered to.<sup>39</sup> Therefore, controlling nuclear weapon states is mainly about facilitating trade for Euratom/the EU as a whole. But, the control is also necessary in order for the EU to

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35. For an overview of the development of the Euratom Safeguards system (until 1990), see Howlett, D. A. (1990), *EURATOM and Nuclear Safeguards*, Palgrave Macmillan, New York. See also Lindroos, A. (1997), "The Role of Euratom in the Non-Proliferation Regime", *Finnish Year Book of International Law*, Vol. 8, p. 307; Gorove, S. (1965), "The First Multinational Atomic Inspection and Control System at Work: Euratom's Experience", *Stanford Law Review*, Vol. 18, No. 2, pp. 160-186; and Patel, B. and P. Chare (2007), "Fifty Years of Safeguards under the Euratom Treaty – a Regulatory Review", *ESARDA Bulletin*, Vol. 36, pp. 3-10.

36. The US, however, did not do this with Canada and the UK. Nanes, A. S. and R. Efron (1960), "The European Community and the United States: Evolving Relations", *The Review of Politics*, Vol. 22, No. 2, pp. 179-180.

37. Euratom Treaty, *supra* note 1, Article 84(3) reads: "The safeguards may not extend to materials intended to meet defence requirements which are in the course of being specially processed for this purpose or which, after being so processed, are, in accordance with an operational plan, placed or stored in a military establishment".

38. Case C-61/03, *Commission v. United Kingdom*, ECLI:EU:C:2005:210. The case concerned a reactor, which was used in the UK's nuclear propulsion programme for nuclear submarines. The reactor was to be decommissioned and the European Commission requested that the UK send detailed information so that it could determine whether "general data" required under Euratom Treaty Article 37 should be provided. Under this provision, each member state shall provide the Commission with general data relating to any plan for the disposal of radioactive waste. The data has to be such that the Commission can determine whether the implementation of such a plan has transboundary effects. In the view of the UK, the reactor did not fall within the scope of the Euratom Treaty, as it was used for military purposes. The Euratom Treaty does not contain a general derogation clause similar to Article 346 of the TFEU, which provides that no member state shall be obliged to supply information that the member state considers contrary to the essential interests of its security should such information be disclosed. The Court decided that the absence of such a clause must mean that military activities are excluded from the scope of the Euratom Treaty. The Court's finding was confirmed in Case C-65/04, *Commission v. United Kingdom*, ECLI:EU:C:2006:161 ("Gibraltar Submarine Case").

39. See Euratom Treaty, *supra* note 1, Article 77(b). See also Schleicher, H. W. (1980), "Nuclear Safeguards in the European Community: A Regional Approach", *IAEA Bulletin*, Vol. 22, No. 3/4, pp. 45-50.

be a credible global actor; it shows that the EU takes non-proliferation seriously in that it makes certain that no covert diversion will take place on European soil.

**b. Implications of Brexit on European nuclear non-proliferation**

Euratom is safeguarding nuclear material in the United Kingdom, except for material intended for military use. When the United Kingdom exits Euratom, this control will stop. However, this does not mean that there will be no external safeguards control in the UK whatsoever. All Euratom member states are subordinated to two sets of controls. The International Atomic Energy Agency (IAEA) has a safeguards system, which works in parallel with the Euratom one. The IAEA system was created a decade after the Euratom system by the adoption of the non-proliferation treaty (NPT).<sup>40</sup> Under the IAEA system, which is global in its approach, non-nuclear weapon states are obliged to conclude so-called comprehensive safeguards agreements (CSA) with the IAEA. Such agreements imply that all nuclear material and all nuclear activities in a state are subject to IAEA safeguards. Euratom concluded a CSA with the IAEA in 1973.<sup>41</sup> It is a mixed agreement where the member states are parties alongside Euratom and the IAEA.<sup>42</sup> The UK and France are not parties since they are nuclear weapon states. They have instead concluded separate agreements, so-called “voluntary offer” agreements with the IAEA.<sup>43</sup> A voluntary offer agreement is of more limited scope than CSAs in that they exclude facilities with national security

40. Treaty on the Non-Proliferation of Nuclear Weapons (1968), IAEA Doc. INFCIRC/140, 729 UNTS 169, entered into force 5 March 1970 (NPT).

41. Agreement between the Kingdom of Belgium, the Kingdom of Denmark, the Federal Republic of Germany, Ireland, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands, the European Atomic Energy Community and the International Atomic Energy Agency in Implementation of Article III, (1) and (4) of the Treaty on the Non-Proliferation of Nuclear Weapons (1973), IAEA Doc. INFCIRC/193. See also Agreement between the Kingdom of Belgium, the Kingdom of Denmark, the Federal Republic of Germany, Ireland, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands, the European Atomic Energy Community and the International Atomic Energy Agency in implementation of Article III (1) and (4) of the Treaty on the non-proliferation of nuclear weapons (78/164/Euratom), OJ L 51 (22 February 1978), p. 1. The NPT provides that its requirements can be met by states either individually or together with other states. NPT, Article III.4.

42. The Euratom Treaty has a specific clause on so-called mixed agreements. See Euratom Treaty, *supra* note 1, Article 102.

43. These agreements are “tripartite”, that is, the parties are the UK, the IAEA and Euratom. The UK concluded a safeguards agreement with Euratom and the IAEA on 6 September 1976. The Text of the Agreement of 6 September 1976 between the United Kingdom of Great Britain and Northern Ireland, the European Atomic Energy Community and the Agency in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons (1978), IAEA Doc. INFCIRC/263, entered into force 14 August 1978. France, Euratom and the IAEA concluded a safeguards agreement in July 1978. The Text of the Agreement of 27 July 1978 between France, the European Atomic Energy Community and the International Atomic Energy Agency for the Application of Safeguards in France (1981), IAEA Doc. INFCIRC/290, entered into force 12 September 1981. At that time, France was not yet a party to the NPT, not joining until 1992.

significance. Thus, the IAEA only performs safeguards in a small number of installations in the UK, installations that are under “voluntary offer”.<sup>44</sup>

Euratom’s safeguards system is much wider in scope than the IAEA system as it does not differentiate between nuclear weapon states and non-nuclear weapon states; the Commission has inspection rights in all EU member states and it safeguards all civil nuclear material. When Brexit takes place, the “regional” layer of safeguards, that is, the Euratom safeguards, will not be exercised in the UK. Although the international layer at the IAEA level will continue, the result is a significant downscaling of safeguarding activities in the UK.

Another implication of Brexit concerns enforcement. As opposed to the international (IAEA) system of safeguards, the Euratom system has real “teeth” in the event a member state breaches its obligations. The Commission can initiate an infringement procedure and eventually bring the matter before the CJEU. Moreover, the Commission may impose sanctions in the event of an infringement on the part of persons or undertakings.<sup>45</sup> These can take the form of: a) a warning; b) the withdrawal of financial or technical assistance; c) the placing of the undertaking under the administration of a person or board; or d) the withdrawal of nuclear materials. The sanctions are in order of severity, with the withdrawal of nuclear material being the most severe. Over the years, the Commission has issued several warnings (some of them to operators in the UK),<sup>46</sup> but it has also (at least on one occasion) placed a company under administration.<sup>47</sup>

The IAEA system has none of this, as it is much softer. Unlike the Euratom system, the IAEA system is not backed up by a court. The IAEA controls are also less detailed and less “intrusive”. There is no system of sanctions directed to the operators. There are fewer inspections and the scope of inspections is much more narrow. For the UK and the nuclear operators, Brexit means that the supranational actor will no longer be there. Brexit might not lead to proliferation risks, but on a global level – and on a symbolical level – downscaling safeguards efforts is not a positive thing.

At the EU, a considerable amount of money is devoted to the inspection of nuclear weapon states; about 70% of the Euratom budget for safeguards goes to inspecting the reprocessing plants at Sellafield in the UK and at La Hague in

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44. See Office for Nuclear Regulation (ONR) (2016), “IAEA Safeguards in the UK”, [www.onr.org.uk/safeguards/iaea.uk.htm](http://www.onr.org.uk/safeguards/iaea.uk.htm). ONR explains that the IAEA currently inspects “parts of the Sellafield facility ... and the gas centrifuge enrichment facility at Capenhurst”. Also, in 2014, Euratom carried out 1 234 inspections and 643 of them were joint inspections together with the IAEA. EC, Directorate-General for Energy, Directorate E – Euratom Safeguards (2014), Report on the Implementation of Euratom Safeguards in 2014, EC, Luxembourg, p. iv, available at [https://ec.europa.eu/energy/sites/ener/files/documents/20151211%20Annual\\_Report%202014.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/20151211%20Annual_Report%202014.pdf).

45. More specifically, in case an inspection is opposed, the Commission can apply to the ECJ for an order to make the completion of the inspection compulsory. If there is a “danger in delay”, the Commission itself may issue a written order to proceed with the inspection.

46. See, for example, the warning issued by the Commission addressed to BNG Sellafield Limited. Commission Decision 2006/626/Euratom of 15 February 2006 pursuant to Article 83 of the Treaty establishing the European Atomic Energy Community, OJ L 255 (19 September 2006), p. 5. In 2006, BNG Sellafield Limited brought an action to the Court to annul that decision. It submitted, *inter alia*, that the Commission lacked the competence to adopt the decision and the measures imposed. In 2009, the applicant informed the Court that it wished to discontinue proceedings. See Case T-121/06, *British Nuclear Group Sellafield v. Commission*, ECLI:EU:T:2009:469.

47. This decision was challenged in the ECJ. See Case C-308/90, *Advanced Nuclear Fuels v. Commission*, ECLI:EU:C:1993:23 (“ANF Lingen”).

France.<sup>48</sup> On a positive note, Brexit means money saved as the Commission no longer will have to inspect the UK. Of course, Brexit also means less money going to Euratom, as the UK will no longer contribute to the budget.

Brexit also means that there will be a symbolic loss; European control of a nuclear weapon state will be lost. However, one might also argue that the EU's credibility as a global actor will increase; the EU will only have one nuclear weapon state rather than two. This can make it somewhat easier to put pressure on other states.<sup>49</sup> So, when it comes to non-proliferation, Brexit is not necessarily a bad thing. However, it should be pointed out that in any event, as an international actor, the EU would remain stronger with the United Kingdom as a member than without it.

## 5. Concluding remarks

Rightly so, Euratom is not at the centre of the Brexit debate. But, there are some important implications that should be put into light. This brief article has discussed some of them. The most important implication is probably to be found in the area of nuclear non-proliferation. Brexit means a significant downscaling of safeguards in the UK; the Euratom safeguards system will no longer apply. The IAEA safeguard system, which works in parallel with the Euratom one, will continue to apply to the UK, but the scope is not as far-reaching as the Euratom system. However, it would be a clear overstatement to say that Brexit will lead to a risk for nuclear proliferation. The most important implication is rather to be found at the symbolic level; the downscaling of control of a nuclear weapon state is obviously not a good thing. Yet, for the EU as a global actor, there might actually be some unforeseen changes; Brexit might make it easier for the EU to act globally in the field of nuclear non-proliferation.

The article has also pointed to the possibility for the United Kingdom to stay as a member of Euratom. If the United Kingdom wishes to stay in Euratom but exit the EU, this is legally possible. However, this sets up some practical problems as the institutional composition will vary depending on whether a legal instrument is to be adopted on the basis of the EU Treaties or the Euratom Treaty. Although problematic, this should not be an impossible issue to solve. But, it is more likely that a complete, full-fledged, exit is to be preferred, both for the United Kingdom and the other member states.

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48. In 2014, the budget for Euratom's safeguards was EUR 20 520 000. EC, Directorate-General for Energy, Directorate E – Euratom Safeguards (2014), Report on the Implementation of Euratom Safeguards in 2014, EC, Luxembourg, p. 18, available at [https://ec.europa.eu/energy/sites/ener/files/documents/20151211%20Annual\\_Report%202014.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/20151211%20Annual_Report%202014.pdf).

49. Cf. the situation before 1992, when France was not a party to the NPT. It was for many years difficult for the member states to formulate a credible non-proliferation policy. France's accession to the NPT in 1992 created the opportunity for a more active policy. In 1995, the first important step was taken when the EU adopted a Joint Action to help build consensus on the indefinite extension of the NPT. See Council Decision 94/509/CFSP of 25 July 1994 concerning the joint action adopted by the Council on the basis of Article J.3 of the Treaty on European Union regarding preparation for the 1995 Conference of the States parties to the Treaty on the Non-Proliferation of Nuclear Weapons, OJ L 205 (8 August 1994), p. 1.