EN 2020

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Special Report

The Commission contributes to nuclear safety in the EU, but updates required

EUROPEAN
COURT
OF AUDITORS

Contents

Executive summary

I The EU defines nuclear safety as the achievement of proper operating conditions, prevention of accidents and mitigation of accident consequences, resulting in the protection of workers and the general public from dangers arising from ionising radiation from nuclear installations. Nuclear installations' licence holders (operators) are primarily responsible for the safety of their installations, under the supervision of national regulatory authorities.

II Within the EU, the peaceful use of nuclear energy is governed by the 1957 Euratom Treaty, which established the European Atomic Energy Community and provides the legal framework for its competences and activities. Recent Euratom directives set requirements for nuclear safety, radioactive waste and spent fuel, as well as basic safety standards.

III Our audit examined how well the Commission used its competencies to contribute to nuclear safety in the EU. We assessed how the Commission monitored the transposition of Euratom directives into legislation in Member States. We looked at the arrangements for early notification and information exchange in the event of a radiological emergency, where the Commission's role is limited to managing the system. Finally, we looked at two activities for which the Commission's role derives from the Euratom Treaty: it gives opinions on nuclear investment projects and has a right to verify the operation and efficiency of Member States' facilities for continuous monitoring of the level of radioactivity.

IV We conclude that, overall, the Commission has contributed well to nuclear safety in the EU. However, there is scope for the Commission to update the legal framework and its internal guidelines.

V The Commission has improved the way it monitors the transposition of Euratom directives. It was better prepared for the two most recent directives (the amended Nuclear Safety Directive and the Basic Safety Standards Directive) than for the earlier Radioactive Waste and Spent Fuel Directive.

VI During the period covered by our audit, the Commission used the outcome of the peer reviews as an information source when assessing the conformity of a Member State with Euratom directives. Once the transposition and conformity checks are complete, the Commission will continue to be responsible for monitoring the results of the peer reviews.

VII We found that the Commission manages well the European Community Urgent Radiological Information Exchange (ECURIE) arrangements. It could improve the follow-up of lessons learned but has steadily developed the system to ensure that it functions well and is technologically up to date.

VIII The Commission examines nuclear investment projects to assess their compatibility with the Euratom Treaty. It issues a non-binding opinion to the Member State concerned. We found that the current framework for issuing these opinions is not up to date with the latest policy, legislative and technological developments. For instance, while many reactors are undergoing long-term operation (LTO) investments to prolong operation of nuclear facilities beyond their original design life, the current framework is unclear on whether these investments should be subject to mandatory notification to the Commission.

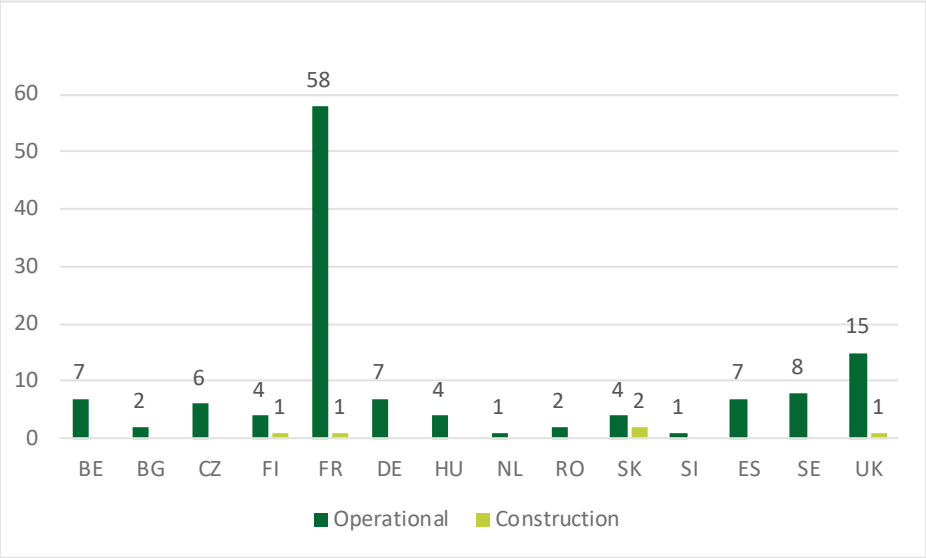
IX Our audit showed some limitations in the procedures the Commission applies to prepare the opinions on nuclear investment projects and to verify Member States' facilities for continuous monitoring of the level of radioactivity. The Commission lacks robust procedures that would ensure the completeness, consistency and coherence of these activities.

X Based on our conclusions, we make recommendations focusing on the Commission's role in monitoring the transposition of the Euratom directives, the framework under which it issues the opinions on nuclear investment projects, and the approach it applies when preparing the opinions and carrying out verifications of radioactivity monitoring facilities.

Introduction

01 At the end of 2018, 14 Member States operated a total of 126 nuclear power reactors[1]. Four of these Member States had new reactors under construction (see ***Figure 1***).

Figure 1 – Number of reactors on 31 December 2018



Source: ECA, based on data from the IAEA Nuclear Power Reactors in the World, Reference Data Series No. 2, IAEA, Vienna (2019).

02 Nuclear plants generated around 25 % of the electricity produced in the European Union (EU) in 2017[2]. Electricity production from nuclear power plants decreased by around 18 % from 2004 to 2017.

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1 International Atomic Energy Agency, Nuclear Power Reactors in the World, Reference Data Series No. 2, IAEA, Vienna (2019).

2 Eurostat, Nuclear energy statistics.

What is the legal and organisational framework for nuclear safety?

03 The International Atomic Energy Agency (IAEA) is the central intergovernmental forum for scientific and technical cooperation in the nuclear field at global level. It is the depositary of several key international conventions, such as the Convention on Nuclear Safety, the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency[3]. The IAEA safety standards establish fundamental principles, requirements and recommendations to ensure nuclear safety, serving as a global reference. Many other organisations contribute to nuclear safety globally and in Europe, e.g. the Nuclear Energy Agency (NEA)[4], the Western European Nuclear Regulators Association (WENRA), the European Nuclear Safety Regulators Group (ENSREG)[5] and the World Association of Nuclear Operators (WANO).

04 Nuclear safety is the responsibility of each country using nuclear technology. **Governments** are responsible for regulating nuclear safety, and nuclear facility **operators** are ultimately responsible for the safety of their facility. National responsibility for the nuclear safety of nuclear installations is the fundamental principle on which nuclear safety legislation has been developed at the international level.

05 Within the EU, the peaceful use of nuclear energy is governed by the 1957 Euratom Treaty[6], which established the Euratom Community (Euratom) and provides the legal framework for its competences and activities. Although Euratom has the same members as the EU and is governed by the EU institutions, it is a separate legal entity.

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[3] Most Member States are contracting parties to these and other international conventions related to nuclear safety.

[4] The NEA, under the framework of the Organisation for Economic Co-operation and Development (OECD), is an intergovernmental agency that facilitates cooperation among countries with advanced nuclear technology infrastructures.

[5] The European Nuclear safety Regulators Group (ENSREG) is an independent, expert advisory group, composed of representatives from all Member States and a representative from the Commission that attends and participates in debates. The members of the group elect their chair (Commission Decision of 17 July 2007). It advises and assists the Commission and facilitates consultations, coordination and cooperation among national regulatory authorities.

[6] Treaty establishing the European Atomic Energy Community.

06 The Commission deals with nuclear activities from three angles: nuclear safety, nuclear safeguards and nuclear security (see ***Box 1***).

Box 1

Nuclear safety, security and safeguards

Nuclear safety is defined by the EU[7] as the achievement of proper operating conditions, prevention of accidents and mitigation of accident consequences, resulting in the protection of workers and the general public from dangers arising from ionising radiation from nuclear installations.

Nuclear safeguards (where the Commission has sole competence) are measures established to guarantee that nuclear materials are not diverted to purposes other than those for which they were originally declared. Users and holders of nuclear material in the EU are obliged to keep records and to declare all flows of these materials to the Commission.

Nuclear security (primarily a national responsibility) is defined by the IAEA as the prevention and detection of, and response to, criminal or intentional unauthorised acts involving nuclear material, other radioactive material, associated facilities or associated activities[8]. The physical protection of nuclear installations and radioactive materials is related to countries' security and defence policies and is mostly within their competence.

07 In the EU, Member States are responsible for establishing and maintaining a national legislative, regulatory and organisational framework for nuclear safety. Nuclear installations' licence holders (operators) are primarily responsible for the safety of their installations, under the supervision of national regulatory authorities.

08 The Commission's main role in nuclear safety is to make proposals to develop the Euratom legal framework and oversee the transposition of legal instruments into national legislation in Member States. When the Commission, in its role as "Guardian of the Treaties", considers that a Member State is infringing the provisions of Euratom legislation, it may launch an infringement procedure.

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[7] Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations, amended by Council Directive 2014/87/Euratom.

[8] IAEA Safety Glossary, 2018 Edition, © IAEA, 2019.

09 The Commission also has rights and responsibilities relating to nuclear safety and radiation protection derived from the Euratom Treaty. Under Article 35 of the Euratom Treaty, the Commission has a right to verify the operation and efficiency of Member States' facilities for continuous monitoring of the level of radioactivity in the air, water and soil. The Commission consolidates the information sent by Member States on environmental radioactivity levels on their territory[9].

10 The Commission examines nuclear investment projects planned in the Member States to check their compatibility with the Euratom Treaty. According to the procedure set out in Articles 41 to 44 of this Treaty, investors must communicate investment projects in the nuclear industry to the Commission[10]. The Commission then communicates its opinion on the project (or "**view**", according to Article 43 of the Euratom Treaty) to the Member State concerned, presenting an analysis of the investment.

11 While the provision of emergency preparedness and response arrangements remains a national responsibility, the Commission operates, manages and develops the European Community Urgent Radiological Information Exchange (ECURIE) system, created in the wake of the 1986 Chernobyl accident[11].

12 In addition to the role derived from the legal framework, the Commission facilitates dialogue and cooperation with Member States through, for instance, the European Nuclear Safety Regulators Group (ENSREG). It cooperates with non-EU countries operating or constructing nuclear power plants and concludes agreements with third countries in the field of nuclear cooperation. The Commission also cooperates with international organisations, such as the IAEA and the NEA.

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[9] Article 36 of the Euratom Treaty.

[10] Related to the industrial activities listed in Annex II to the Euratom Treaty.

[11] Council Decision 87/600/Euratom on Community arrangements for the early exchange of information in the event of a radiological emergency.

Euratom directives form a legally binding framework for nuclear safety

13 The Euratom Treaty empowers Euratom to establish and enforce safety standards to protect the health of workers and the general public[12]. The basic standards are adopted by the Council of the European Union after consultation with the European Parliament, on the basis of a proposal from the Commission[13].

14 Since 1959, shortly after it was created, Euratom has laid down, in directives, the basic standards to protect the health of workers and the general public against the dangers arising from ionising radiation. Following a 2002 judgment of the Court of Justice of the European Union (CJEU)[14] that recognised and clarified Euratom's shared competence with the Member States in the area of nuclear safety, the Council adopted legislation in the areas of nuclear safety[15] in 2009, and radioactive waste management and spent fuel[16] in 2011. The basic safety standards directive has been updated regularly, with the latest update also incorporating the provisions of several former directives[17].

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[12] Article 2(b) and Title II, Chapter 3 (“Health and Safety”) of the Euratom Treaty.

[13] Articles 30 and 31 of the Euratom Treaty.

[14] CJEU judgment of 10 December 2002, case C-29/99, Commission v Council, ECR I-11221.

[15] Council Directive 2009/71/ Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations, amended by Council Directive 2014/87/ Euratom of 8 July 2014.

[16] 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.

[17] Council Directive 2013/59/EURATOM of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom.

Table 1 – Recent Euratom directives.

Nuclear Safety Directive (NSD) 2009, amended 2014	Radioactive Waste and Spent Fuel Directive (RWD) 2011	Basic Safety Standards Directive (BSSD) 2013
The nuclear safety directive (NSD) is built upon the nuclear safety requirements of the Convention on Nuclear Safety and of the Safety Fundamentals established by the IAEA. The directive was amended in July 2014 in the light of the lessons learned from the 2011 Fukushima nuclear accident and the findings of the risk and safety assessments of EU nuclear power plants, the so-called 'stress tests'. The amended directive strengthens the power and independence of the national regulatory authorities. It introduces a high-level EU-wide safety objective to prevent accidents and, should an accident occur, mitigate its consequences and avoid early and large radioactive releases	**The radioactive waste and spent fuel directive** (RWD) requires that Member States have a national policy that describes how they intend to manage radioactive waste and spent fuel from civilian nuclear activities. Member States have to establish national programmes, which translate the national policies into concrete plans of action. They also have to put in place a national legislative, regulatory and organisational framework ('national framework'), and a competent and independent regulatory body.	The 2013 **basic safety standards directive** (BSSD) establishes the basic safety standards for radiation protection of workers, patients and the general public and sets limits on the maximum radiation dose covering all exposure situations (planned, existing and emergency). The new directive updated and incorporated the provisions of several former directives and added new provisions, including those on emergency preparedness and response incorporating some of the lessons learnt from the 2011 Fukushima accident.

Source: ECA.

15 The Nuclear Safety Directive (NSD)[18] and the Radioactive Waste and Spent Fuel Directive (RWD)[19] set requirements to carry out three types of regular peer reviews (see ***Box 2***). The international peer reviews are an opportunity to exchange professional experience and to share lessons learned and good practices through advice from peers, with the aim of continuously improving nuclear safety.

[18] Article 8e of the NSD.

[19] Article 14(3) of the RWD.

Box 2

Peer reviews

The Euratom directives set requirements for three types of regular peer reviews:

- The amended NSD introduced a European system of topical peer reviews that focus on a specific safety issue every six years. The first topical peer review, conducted in 2017-2018, was dedicated to the ageing management programmes of nuclear installations. The Nuclear Safety Regulators Group (ENSREG) prepared the peer review with the support of the Western European Nuclear Regulators Association (WENRA) in coordination with the Commission.
- The NSD requires Member States to also conduct periodic self-assessments of their national framework and competent regulatory authorities at least every ten years, and to request an international peer review of relevant segments of their national framework and competent regulatory authorities. Member States use the IAEA Integrated Regulatory Review Service (IRRS) to comply with these peer review requirements. The Commission has provided financial support for the IRRS mission programme.
- The RWD requires that Member States carry out self-assessments and request international peer reviews of their national framework, competent regulatory authority, national programme and its implementation at least every 10 years. Member States use the IAEA peer review services to meet these requirements.

Audit scope and approach

16 Our audit assessed how well the Commission used its competencies to contribute to nuclear safety in the EU. We examined how the Commission has:

(a) monitored the transposition of the three most recent Euratom directives into Member State legislation;

(b) managed the mechanisms for early notification and the exchange of information in the event of a radiological emergency;

(c) contributed to enhancing nuclear safety through its opinions on investment projects;

(d) prepared its opinions on investments and verified the operation of radioactivity monitoring facilities.

17 We focused on the Commission's activities, based on its assigned competences and responsibilities. We did not seek to examine the international nuclear safety framework or its application in Member States, nor did we look at the technical aspects of nuclear safety. We did not cover emergency preparedness and response, apart from looking at the Commission's role in managing the EU early notification system ECURIE. Nuclear security and nuclear safeguards were beyond the scope of our audit. The period covered by our audit runs until the end of July 2019.

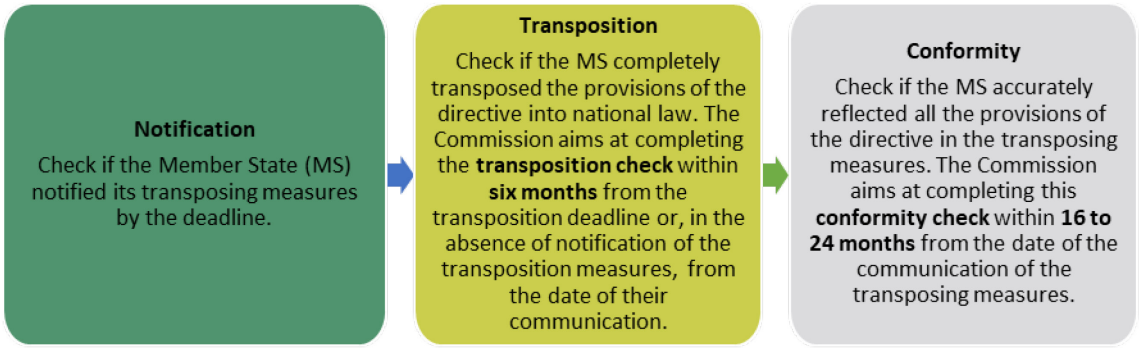
18 We reviewed the legal framework and relevant policies, strategies, standards and conventions. We examined the Commission's procedures, internal strategies and guidelines, guidance provided to Member States, tools, working papers, information exchanges, correspondence and meeting minutes. We reviewed reports, studies, internal and external assessments and other relevant documents. We examined four Commission opinions on nuclear investment projects. We carried out interviews with the Commission (Directorate-General Energy and Joint Research Centre – JRC), and discussed nuclear safety questions with experts in international organisations.

Observations

The Commission made some improvements to its monitoring of the transposition of Euratom directives

19 The Commission is responsible for overseeing the implementation and application of Euratom directives and for taking action to promote and enforce compliance. In order to do so, the Commission performs transposition and conformity checks (see ***Figure 2***).

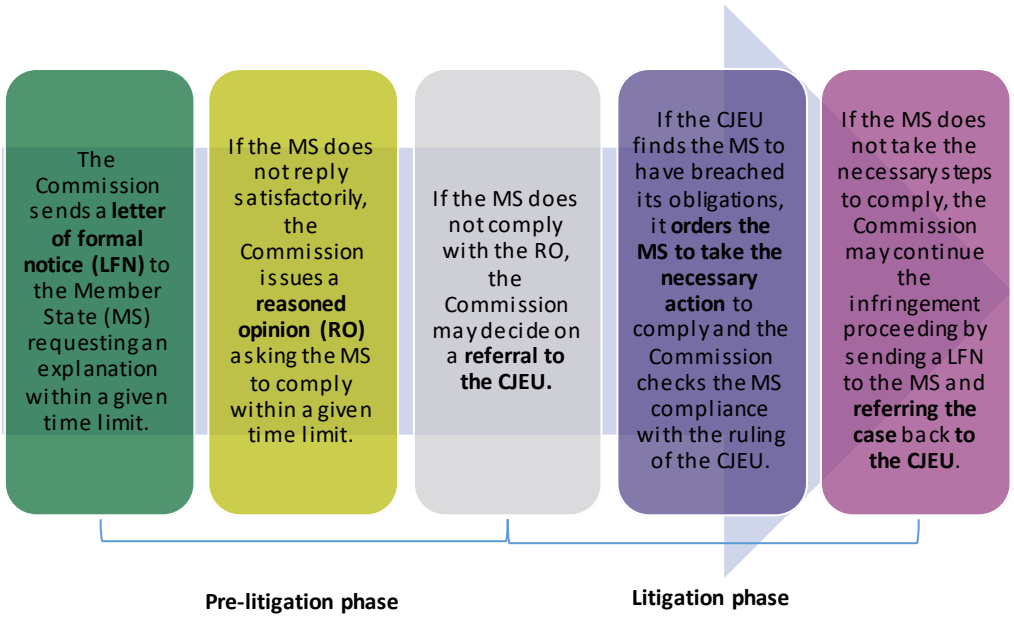
Figure 2 – The Commission compliance checking process



Source: ECA based on Commission, Better Regulation Tool Box 37.

20 Cases of non-compliance detected in transposition and conformity checks may lead to enforcement through the infringement procedure explained in ***Figure 3***.

Figure 3 – The infringement procedure



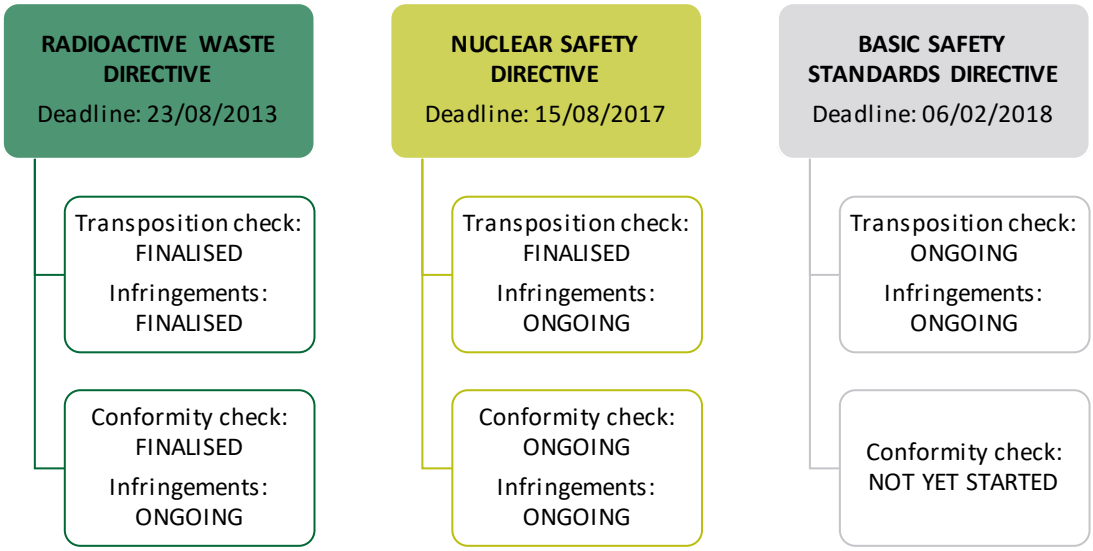
Source: ECA based on Article 258 of the TFEU.

21 We looked at the transposition and conformity checks performed by the Commission on the three recent Euratom directives[20], in order to assess how it monitored their transposition. We examined whether the Commission facilitated, coordinated and supervised the process, conducted these checks in a timely manner, followed up non-compliance cases and initiated action.

22 Given the different dates of entry into force and deadlines for transposition set in each directive, the Commission's checks occurred at different stages at the time of our audit(see ***Figure 4***).

[20] RWD 2011, NSD 2014, BSSD 2013.

Figure 4 – Status of the compliance checks at the time of the audit.



Source: ECA based on information received from the Commission.

The Commission was better prepared for the two newer directives

23 In addition to monitoring and enforcement, the Commission may develop other tools to facilitate Member States' transposition of the directives in a correct and timely manner. The number of Member States that notified their transposing measures by the deadline was higher for the two newer directives (BSSD and amended NSD), compared to the RWD (see ***Table 2***).

Table 2 – Number of Member States that transposed the directives by the deadline.

	Radioactive Waste Directive (RWD)	Nuclear Safety Directive (NSD)	Basic Safety Standards Directive (BSSD)
Transposition deadline	23/08/2013	15/08/2017	06/02/2018
Notifications submitted by the deadline or before the launch of non-communication infringements	17	24	21

Source: ECA, based on information received from the Commission.

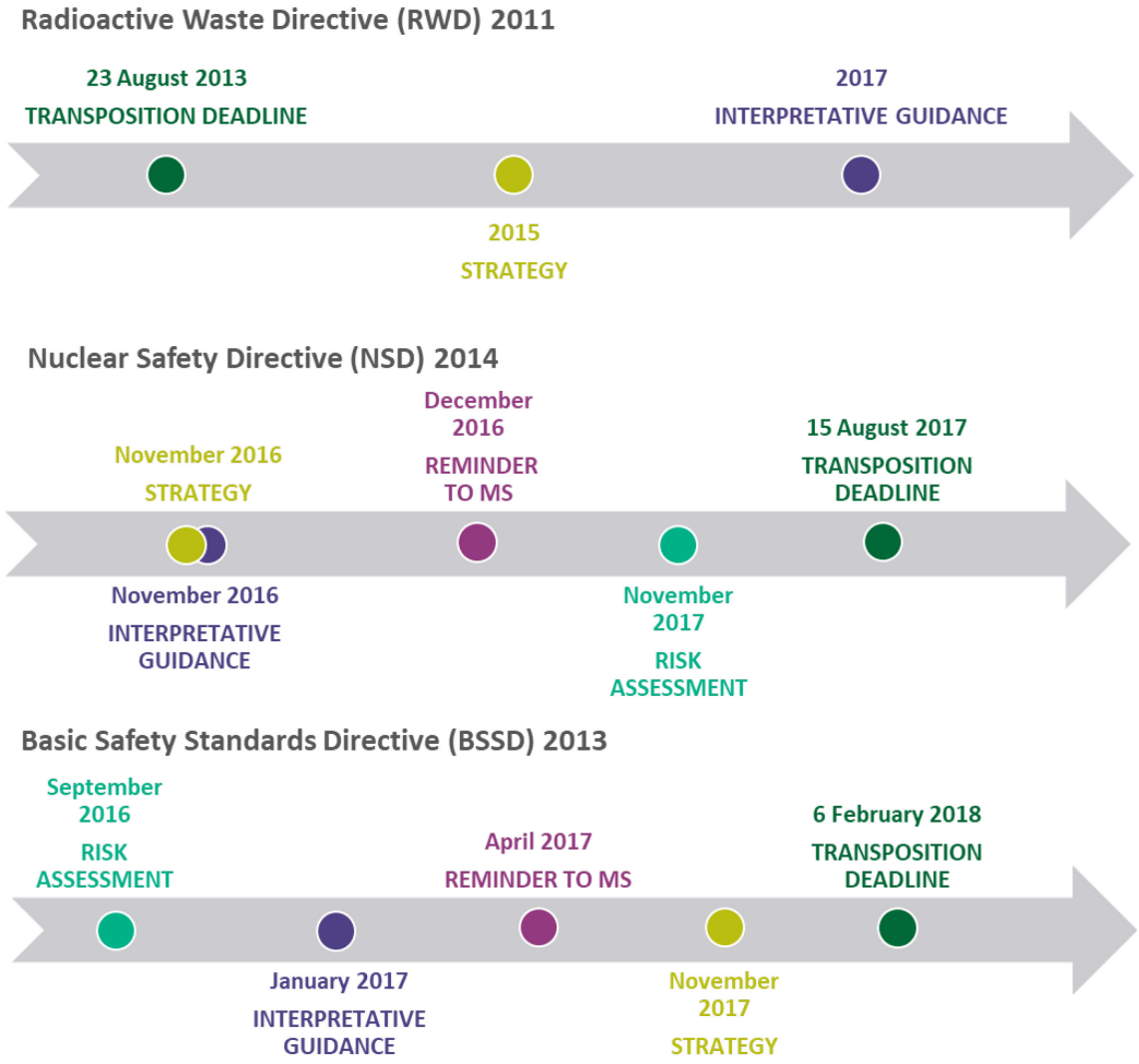
24 We found that three factors contributed to the faster transposition of the NSD and BSSD: the transposition risk evaluations, the reminders sent to the Member States, and the key strategic documents that were approved earlier compared to the previous directive. Commission's services:

- prepared the transposition risk evaluations of the NSD and BSSD respectively **one year** and **two years ahead** of the transposition deadline (see ***Figure 5***), whereas, for the RWD, the Commission did not prepare a risk assessment anticipating potential transposition issues;

- about **one year before** the transposition deadline (see ***Figure 5***), sent letters to Member States to remind them of the obligation to communicate their measures on time. The Commission did not send a reminder for the RWD;

- approved the key strategic documents of the NSD and BSSD between **4 months and 1 year ahead** of the transposition deadline (see ***Figure 5***). The strategies for the evaluation of the transposition and implementation of the two directives provide the actions planned for the review of the transposition of the directives. The strategies helped to anticipate and solve problems with the implementation of the directives and laid down a comprehensive array of compliance promoting tools that helped Member States apply them correctly and in a timely manner (details in ***Table 3***). The interpretative guidance supported the Commission in promoting and documenting its transposition and conformity verification processes. In the case of the RWD, the Commission made the internal strategy available only **two years after** the transposition deadline, and the interpretative guidance **four years after**.

Figure 5 – Timeline for approval of the strategic documents.



Source: ECA based on information received from the Commission.

Table 3 – Compliance promoting tools used to facilitate transposition.

Radioactive Waste and Spent Fuel Directive (RWD)	Nuclear Safety Directive (NSD)	Basic Safety Standards Directive (BSSD)
o One pre-transposition workshop o Videoconferences with Member States (MS) o Meetings with MS o EU Pilots	o Dialogues with MS on transposition and implementation o Pre-transposition workshops and bilateral meetings o Cooperation with stakeholders, including national authorities and civil society groups o Discussions at ENSREG	o Dialogues with MS on transposition and implementation o Pre-transposition workshops and bilateral meetings o Commission's analysis of MS' transposition strategies ahead of the transposition deadline o Roundtables and seminars

Source: ECA based on information received from the Commission.

The Radioactive Waste and Spent Fuel Directive has not been correctly transposed in all Member States

25 The Commission spent **57 months** completing the conformity check on the RWD (***Annex I***, ***Table 2***) – significantly longer than the 16 to 24-month benchmark set in the Commission Better Regulation[21]. This is partially explained by the delays with which the Member States transposed the Directive and the incompleteness of the transposing measures.

26 After having finalised the conformity check, the Commission opened 15 infringement proceedings (examples of the RWD provisions which Member States most frequently failed to transpose correctly can be found in ***Annex II***). By the time of our audit, 13 months after the launch of these proceedings, only two of them had been closed. Hence, almost **six years** after the transposition deadline, 13 Member States had not yet correctly transposed the RWD (see ***Annex I***, ***Table 2***). Similarly, almost **four years** after the deadline to adopt a national programme (see ***Annex I***, ***Table 3*** one Member State had not done so and other 17 had adopted programmes that the Commission considered non-compliant with the Directive.

[21] Commission, Better Regulation Toolbox 37.

27 The Commission uses its discretion in the opening of an infringement proceeding against a Member State and in the pursuit of an open case[22]. However, it has identified a list of "priority infringement cases" and set benchmarks for processing these cases in a timely manner[23]. The Commission prioritises, among others, cases where Member States have failed to communicate transposition measures or where those measures have incorrectly transposed directives. The Commission has set itself a 12-month benchmark to either close or refer to the case of non-communication to the CJEU[24]. This benchmark is calculated from the sending of the letter of formal notice.

28 In the context of the RWD, we found that in 5 of the 13 infringement procedures launched, the Commission went beyond this 12-month benchmark when treating cases of non-communication. As illustrated in ***Annex I***, ***Table 1***, the Commission took more than two years to proceed further in the pre-litigation phase (Letter of Formal Notice to Reasoned Opinion) for the two cases where it issued a Reasoned Opinion.

The Commission takes account of peer review results

29 During the period covered by our audit, the Commission used the outcome of the peer reviews as an information source when assessing the conformity of a Member State with Euratom directives. For example, the NSD Strategy for the transposition and implementation of the directive refers to the results of the peer reviews, and the NSD Interpretative Guidelines explain the role of the peer review reports when assessing compliance.

30 The Commission may participate as an observer in peer review missions and has occasionally done so. It also contributes to the follow-up of the peer reviews in its role as a member of ENSREG. Once the transposition and conformity checks are complete; the Commission will continue to be responsible for monitoring the results of the peer reviews.

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[22] Case C-247/87 Star Fruit v. Commission.

[23] Communication from the Commission "EU law: Better Results through Better Application", C(2016) 8600 final of 21 December 2016.

[24] Communication from the Commission – A Europe of results – applying Community law, COM(2007) 502 final.

The Commission manages the EU early notification and exchange of information arrangements well

31 The Commission manages, operates and develops the ECURIE system, a tool used to implement the Council Decision[25] on EU arrangements for early notification and the exchange of information in the event of a radiological emergency. We assessed how well the Commission manages these arrangements by examining whether it ensures that the system meets expectations (namely whether it satisfies the obligations arising from the Council Decision), regularly assesses the processes, identifies weaknesses/potential weaknesses and adequately monitors them and tests the systems at regular intervals.

32 The Council Decision requires Member States to promptly notify the Commission and all other Member States potentially affected by an incident by issuing an alert notification in the ECURIE system[26]. Likewise, the Commission must forward to all Member States any information it receives on significant increases in the level of radioactivity or on nuclear accidents in non-EU countries[27]. Member States can also send voluntary urgent notifications to share information. The Commission makes information transmitted via the ECURIE system available on a 24/7 basis to all ECURIE contact points.

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[25] Council Decision 87/600/Euratom on Community arrangements for the early exchange of information in the event of a radiological emergency.

[26] The formal notification threshold for an ECURIE alert message is set in Article 1 of the Council Decision. In summary, the article states that the participating states are required to issue an ECURIE alert if:

(1) the state has a radiological emergency and therefore decides to implement widespread countermeasures to protect its population, or

(2) the state detects abnormal levels of radiation in the environment and therefore decides to implement widespread countermeasures to protect its population.

[27] Article 5 of Council Decision 87/600/Euratom.

33 While the provision of emergency preparedness and response arrangements remains a national responsibility, all Member States are required to participate in ECURIE, while third countries may request ECURIE membership on a voluntary basis[28]. The requirements on EU arrangements do not preclude Member States from having their own additional arrangements, such as national, bilateral or multilateral emergency information exchange and cooperation agreements.

34 Once a participating state sends an ECURIE alert notification, the Commission verifies its authenticity, and transmits it to all ECURIE countries. Following the first notification, Member States are required to notify the Commission at appropriate intervals of the measures they intend to take and the radioactivity levels they have measured. The Commission does not assess the content of the notification or decide whether an emergency notification should be issued, as it is Member States' responsibility. The Commission is responsible for ensuring the timely sharing of the information[29].

35 The Commission has complemented ECURIE with the European Radiological Data Exchange Platform (EURDEP), a web-based platform that makes radiological monitoring data available for authorities almost in real-time. EURDEP is a tool used within the ECURIE framework to facilitate the provision of some information[30]. EURDEP also benefits from existing national infrastructure, in the form of the national monitoring stations and network. EU Member States participation is mandatory, while non-EU countries participate on a voluntary basis. A freely accessible website allows the public to view graphical information on radioactivity levels over the EURDEP area.

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[28] At the time of this audit, there were four non-EU countries participating: Switzerland, Norway, Montenegro and North Macedonia.

[29] Article 5(1) of Council Decision 87/600/Euratom: "Upon receipt of the information referred to in Articles 2, 3 and 4, the Commission shall, subject to Article 6, immediately forward it to the competent authorities of all other Member States. […]".

[30] Member States have to continue to inform the Commission at appropriate intervals of the levels of radioactivity: Article 3(1e, 1f, 3) and 4(b) of the Council Decision 87/600/Euratom.

36 ECURIE arrangements are agreed, discussed and reviewed at the meetings between the Member States' Competent Authorities[31]. The Commission has convened these meetings on average every two years. These meetings also deal with lessons learned and issues identified. The changes agreed are documented in the ECURIE Communication Instruction, which sets out the procedures agreed between the Commission and Member States[32].

37 We found that the Commission has steadily developed the ECURIE system to ensure that it functions well and is technologically up to date. The Commission has agreed processes and provides instructions for users. It regularly organises exercises to test the arrangements[33]. It has carried out or ordered reviews on the ECURIE system to assess and improve it. The Commission has developed ECURIE in coordination with the IAEA's Unified System for Information Exchange in Incidents and Emergencies (USIE). ECURIE has also proved to be technically operational in real cases when Member States have sent alerts[34].

38 However, we found that the Commission did not follow up on certain key areas for improvement that it had identified when assessing the arrangements. For example, lessons learned from real ECURIE alerts have shown the importance of public communication and that it should form part of ECURIE exercises. The Commission has also identified the need to develop a regular ECURIE training programme for national authorities and its own staff. We found that the Commission had made little progress in remedying these issues, even though it considers them important.

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[31] Article 5(2) of Council Decision 87/600/Euratom requires that the Commission and the competent authorities of the Member States agree on detailed procedures for the early exchange of information in the event of a radiological emergency.

[32] In line with article 5.2 of the Council Decision 87/600.

[33] Article 5(2) of Council Decision 87/600/Euratom.

[34] By the time of our audit, ECURIE alerts had been used twice, both in 2008: for Slovenia (Krsko) incident on 4 June 2008 and an incident at IRE radioisotope production facility at Fleurus, Belgium on 28 August 2008.

The Commission's opinions on investment projects contribute to enhancing nuclear safety

39 People and undertakings (investors) are required to notify the Commission of investment projects in the nuclear industry relating to new installations, replacements or conversions no later than three months before concluding the first contracts with suppliers. If the work is to be carried out by the investor, the deadline for communication is three months before the work begins.

40 Two Euratom regulations define the types of investment and the information investors have to provide. Council Regulation 2587/1999 details the types of project that have to be notified to the Commission, as well as the expenditure thresholds for each type of project that requires a mandatory notification. Commission Regulation 1209/2000 specifies the content of the notification.

41 Article 43 of the Euratom Treaty requires the Commission to discuss with the investors "**all aspects**" of the investment projects which relate to the objectives of the Treaty. Following this discussion, the Commission communicates its opinions to the Member State concerned. Neither the Euratom Treaty nor its secondary legislation set time limits for the Commission's analysis of the project.

42 The Commission's opinions on nuclear investment projects are not legally binding[35]. However, only a project with a "favourable" opinion is eligible for a Euratom loan[36].

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[35] Article 288 TFEU: Recommendations and opinions shall have no binding force.

[36] Pursuant to Council Decision 94/179/Euratom, a favourable opinion from the Commission "in technical and economic terms" is required for Euratom loans for investment projects relating to the industrial production of electricity in nuclear power stations implemented in member states and eligible non-member states.

Opinions assess investments' compliance with legal requirements and provide suggestions for improvement

43 For the period 2000-2018, the Commission adopted 75 opinions. All opinions given by the Commission concluded that the investments fulfilled the objectives of the Treaty, in some cases under certain conditions explained in the opinion.

44 We examined four opinions issued by the Commission on investment projects in the nuclear industry, to assess whether the Commission follows the procedure provided for in the Euratom Treaty[37] and its secondary legislation[38], and whether it assesses compliance of the project with all relevant Euratom Treaty obligations in relation to nuclear safety. We selected the latest Commission's opinions, taking into account the relevance (type) and materiality of the investment project.

45 In all four opinions, we found that the Commission had assessed project compliance with all relevant Euratom Treaty obligations in terms of nuclear safety. The Commission ascertains whether the investment project ensures and guarantees respect of the nuclear safety objectives from its very early stages. The opinions are backed by scientific evidence that supports the proposed recommendations, which are discussed with the investor.

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[37] Art. 41-43.

[38] Council Regulation (EURATOM) No 2587/1999 of 2 December 1999 defining the investment projects to be communicated to the Commission in accordance with Article 41 of the Treaty establishing the European Atomic Energy Community (OJ L 315, 9.12.1999, pp. 1-3), and

Commission Regulation (EC) No 1209/2000 of 8 June 2000 determining procedures for effecting the communications prescribed under Article 41 of the Treaty establishing the European Atomic Energy Community (OJ L 138, 9.6.2000, pp. 12-14).

46 For example, two of the Commission's opinions [39] refer to:

- the positive opinion of the Scientific Council for Ionising Radiation on the evaluation of the investor's project;
- the actions and investments needed to ensure the safe long-term operation of the plant;
- the plans for continuous improvement of nuclear safety;
- the action plan following stress tests; and
- the peer reviews and subsequent action taken by the investor.

47 These two opinions also call for:

- the complete and timely implementation of all the stress test results and recommendations;
- the complete and timely implementation of all the peer reviews' results and recommendations;
- the timely implementation of safety improvements; and
- planning and implementing in the nuclear plant a solution for the disposal of spent fuel and radioactive waste.

[39] Published on the investor's website on 23 March 2017.

The current legislative framework needs to be updated to reflect recent developments in the field of nuclear safety

48 Regulations 2587/1999 and 1209/2000 were adopted two decades ago. They predate the latest policy and legislative developments in the field of nuclear safety and radioactive waste management: the European energy strategies of 2014 and of 2015[40], laying down the EU goals in this area, and the most recent Euratom directives (the RWD of 2011, the BSSD of 2013, and the updated NSD of 2014).

49 In order to be able to discuss "all aspects" of the investment projects which relate to the objectives of the Treaty[41], the Commission requires extensive information from the investor. Article 3 of Regulation 2587/1999 stipulates that communications of projects "*shall be limited to details required for the discussion and in particular all the information relating to*", inter alia, the types of products and activity and the production or storage capacity. Regulation 1209/2000 defines the scope of the information the investor is required to communicate.

50 These two regulations are outdated with respect to the types of investments that should be notified, as they do not reflect the latest developments in the nuclear industry.

51 We found one notification of an investment in a new technology for which the Commission had to request additional information to clarify which industrial activity the project concerned, as the notified activity did not fall into any of the categories listed in Regulation 2587/1999. In this case, the investor agreed to provide the additional information requested by the Commission. However, we found another case of a long-term operation (LTO) investment which the investor refused to notify to the Commission, arguing that LTOs are not an investment per se, but a continuous process of upgrading and modernising a reactor, which does not need to be notified. As Regulation 2587/1999 does not specify whether the Commission should be notified of these types of investment, notifying such projects depends on the good will of investors.

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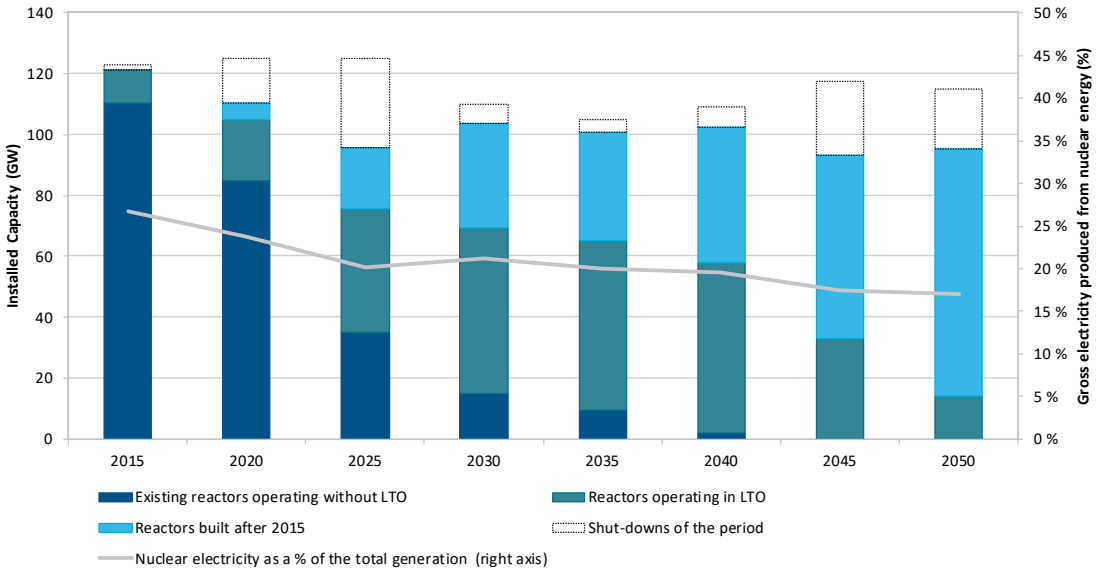
[40] European Energy Security Strategy. COM(2014)330. Communication on a Framework Strategy for a Resilient Energy Union with a Forward-looking Climate Change Policy. COM(2015)80.

[41] As set in Article 43 of the Euratom Treaty.

52 The lack of clarity surrounding whether LTOs should be subject to mandatory notification is of particular relevance as the average age of European reactors is approaching 30 years. Many reactors are undergoing LTO investments to prolong operation of nuclear facilities beyond their original design life. The Commission expects that, in the coming years, LTOs will represent the majority of nuclear investments in the short to medium term[42] (see ***Figure 6***).

Figure 6 – Projection of nuclear installed capacity including LTO, EU-28.



Source: ECA based on a chart provided by the Commission.

53 We also noticed that the investment thresholds (expenditure amounts) set in Regulation 2587/1999 are not clear on what needs to be taken into account to calculate the total cost of the investment (e.g. timeframe of the investment, type of investment, etc.).

54 In 2015-2018, the Commission sent five letters to investors to remind them of their notification obligations. We examined all five cases. In one case, the investor did not reply to the Commission. In another case, the investor refused to notify an investment, arguing that it did not meet the expenditure threshold set in Regulation 2587/1999. According to the investor, the requirement only applies to individual components exceeding the defined threshold, and not to the project as a whole.

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[42] SWD(2017) 158 final: "Commission Staff Working Document Accompanying the document Communication from the Commission Nuclear Illustrative Programme Presented under Article 40 of the Euratom Treaty".

55 In none of these five cases did the Commission apply procedures to pursue cases of non-compliance. If the Commission considers that an investor did not comply with the obligation to notify an investment project, it could consider initiating a pre-infringement procedure against the concerned Member State (further exchanges of information and meetings with the investor and/or the Member State), which may be followed by an infringement proceeding. At the time of our audit, the Commission had not taken any further steps to enforce the obligation to notify projects. The Commission's reasoning for not pursuing these cases was that the legislation was unclear on the type and size of the projects for which a notification was mandatory.

56 The Commission's 2015 Energy Union Package commits to update and enhance the requirements on the information to be provided on nuclear installation projects, undertaking to further specify the information to be communicated by investors[43]. It sets 2015 as the deadline for a Council Regulation updating the requirements to notify nuclear investments.

57 In 2015 the Commission presented the Inception Impact Assessment for the updated regulation, further specifying the type of investments subject to mandatory notification and the information to be provided by the investor. It was followed by a public consultation[44], to which 40 stakeholders replied (potential investors, industry associations, public administrations, regulators, NGOs and private citizens). Although their proposed solutions differed, they all agreed that the procedure leading to the adoption of the Commission's opinion could be made more effective.

58 The Commission's agenda indicates the 2nd quarter of 2020 as the planned adoption date for an updated regulation. By the time of our audit, the Commission had not yet finalised the assessment of the 2016 public consultation feedback, and had not yet prepared the inception report (next step in the process[45]). The Commission did not explain the reasons for the delay in updating the framework.

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[43] COM(2015) 80 final (Energy Union Package).

[44] Public Consultation on "Revision of the information and procedural requirements under Articles 41 to 44 of the Euratom Treaty".

[45] 2017 Better Regulation Guidelines – Better Regulation in the Commission, Chapter III Guidelines on impact assessment.

The Commission had not put in place a robust procedure to prepare its opinions on nuclear investment projects and verify the operation of radioactivity monitoring facilities

59 We assessed how the Commission is preparing its opinions on nuclear investment projects and how it has organised the verifications it carries out on Member States' facilities for continuous monitoring of the level of radioactivity in the air, water and soil.

Preparation of opinions

60 For the four opinions selected, we examined whether the Commission's procedures to prepare its opinions ensured a complete, consistent and coherent assessment of nuclear investments.

61 When preparing its assessment, the Commission follows the framework procedure provided for in: Article 41-44 Euratom Treaty (see paragraph ***39***); Regulation 2587/1999 and Regulation 1209/2000 (see paragraph ***40***); a 2002 empowerment act[46] and the process verbal[47]applied by the Commission's services.

62 The Directorate-General for Energy coordinates the opinion-issuing process, which includes consultation of twelve other Commission's services. The coordinating Directorate-General is responsible for collecting the feedback from the other services and for discussing any concerns with the investor. The Commission's opinions follow a standard template. After an internal validation process, the Commissioner for Energy, on behalf of the Commission, adopts the opinions on nuclear investment projects.

63 We identified a number of limitations in the Commission's framework procedure:

- the Commission has not defined the scope of the assessment by type of project, the criteria to ensure that it covers all relevant aspects, or how to use other nuclear safety information when preparing the opinions, such as stress tests, peer reviews and results of the transposition of directives. Instead, the Commission defines "areas of assessment" on a case-by-case basis, depending on the features of the project notified.

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[46] SEC(2002) 583.

[47] PV(2002)1569 final.

- for projects considered complex and highly technical, the Commission might produce technical reports, and internal documentation summarising the work that led to the opinion. However, there are no criteria defining when a project is considered complex and when such documentation should be compiled.

64 We consider that the framework procedure in place does not ensure coherence, completeness and consistency in the Commission's opinions. For example, we found that in one opinion, contrary to other opinions we looked at, the Commission does not cover aspects such as compliance with the legal framework on nuclear safety and radiation protection, security of fuel supply, spent fuel and radioactive waste management/decommissioning, or nuclear safeguards.

65 The Commission recognised the need to improve its procedures and prepared a draft document in 2017. However, at the time of our audit, the Commission had not yet approved this draft.

Verification of radioactivity monitoring facilities

66 Article 35 of the Euratom Treaty requires each Member State to 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. Under the terms of the same article, the Commission has right to verify their operation and efficiency.

67 The overall objective of the verifications under Article 35 is to check if facilities for continuous monitoring are in place and operable, and if monitoring is performed efficiently[48]. The Commission checks both the operation and efficiency of the facilities (including analytical laboratories, mobile monitoring equipment, and so on) together with the adequacy of the environmental monitoring system.

68 We assessed whether the Commission had used its right to verify these facilities by carrying out verifications at regular intervals, using coherent and clear methodology and adequately reporting and following up the findings.

[48] SWD(2013) 226 final.

69 A Commission communication[49] outlines the arrangements for the conduct of verification visits and provides a general description of the scope, objective, principles for selecting the facilities to be verified, planning of the visits and reporting.

70 The Commission performs its checks on the basis of a three-year rolling programme[50], updated every six months. Territorial coverage and experience of past verifications as well as public interest are the main criteria for selecting the facilities for verification. For planning purposes, the Commission keeps track of territorial coverage i.e. the number of verifications in each Member State. By the time of our audit, the Commission was carrying out on average about 5-6 verifications per year.

71 The Commission's normal practice is to publish its main findings and a technical report, together with the Member State's comments. In the verification report, it may issue recommendations and suggestions or commend a particularly good practice or equipment. The Commission follows up its findings case-by-case, taking into account the specificity of the verification and the significance of the recommendations. If recommendations are given, it requests the Member State to report on the actions taken. It may also carry out a re-verification visit to check that previous recommendations have been given due attention.

72 As regards the methodology for carrying out the verifications, we found similar flaws as the ones we identified in the Commission's opinions on nuclear investment projects. The Commission had neither guidance on specific methodology for conducting the verifications, nor criteria for assessing the operation and efficiency of the facilities or the adequacy of the environmental monitoring programme. There was no agreed guidance on the follow-up procedure defining cases in which the Commission should conduct a re-verification visit.

73 In recent years, the Commission has run an internal project to develop guidance for the conduct of verifications including a clear methodology and established criteria. However, at the time of our audit, they had not reached an internal agreement on this guidance.

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[49] Verification of environmental radioactivity monitoring facilities under the terms of Article 35 of the Euratom Treaty – Practical arrangements for the conduct of verification visits in Member States (2006/C 155/02) of 4 July 2006.

[50] According to Communication 2006/C 155/02 of 4 July 2006, (15), verifications are generally performed in accordance with an annual programme set up by the Commission.

Conclusions and recommendations

74 We conclude that, overall, the Commission has contributed well to nuclear safety in the EU. However, there is scope for the Commission to update the legal framework and its internal guidelines.

75 With regard to the Commission's role in monitoring the transposition of Euratom directives into national legislation, we found that the Commission was better prepared for the two most recent directives, the amended Nuclear Safety Directive (NSD) and the Basic Safety Standards Directive (BSSD), than for the earlier Radioactive Waste and Spent Fuel Directive (RWD) (paragraphs ***23*** to ***24***). Commission services approved the key strategic documents before the transposition deadlines and made use of more compliance promoting tools for the NSD and BSSD than for the RWD.

76 For the RWD, 13 infringement proceedings for non-conformity were still ongoing almost six years after the transposition deadline (paragraphs ***25*** to ***26***). Similarly, infringement proceedings were still ongoing in the majority of Member States for the non-compliance of national programmes required by the RWD, four years after the deadline. We noted that infringement proceedings sometimes moved slowly (paragraphs ***26*** to ***28***).

Recommendation 1 – Updating the approach to monitoring transposition of Euratom Directives

In order to more effectively facilitate and monitor Member States' timely, complete and accurate transposition of future Euratom directives, the Commission should define guidelines that provide for a risk assessment as well as the approval of a strategy and interpretative guidance at least one year ahead of the transposition deadline. The strategy should stipulate the use of compliance-promoting tools as of the pre-transposition phase.

Target implementation date: Directives adopted after 2020

77 The Commission's role in the cross-border approach in the event of a radiological emergency is largely limited to maintaining a technical tool, because the provision of emergency preparedness and response arrangements is a national responsibility. The Commission manages the ECURIE arrangements well to satisfy the obligations arising from Council Decision 87/600 (paragraphs ***31*** to ***36***), although it could improve the follow-up of lessons learned and issues it has determined as needing improvement.

78 As regards the Commission's opinions on investment projects, we found that the current framework is not up-to-date with the latest policy, legislative and technological developments in the field of nuclear safety (paragraphs ***48*** to ***55***). It does not ensure that the Commission obtains the information it needs to discuss "**all aspects**" of the investment projects which relate to the objectives of the Treaty[51]. By the time of our audit, the Commission had not taken further steps since 2016 in the process to propose an update to the legislation (paragraphs ***56*** to ***58***).

79 The Commission uses the peer review results as an information source when assessing the transposition and implementation of the directives (paragraph ***29***), and when preparing its opinions on investment projects (paragraph ***46*** to ***47***). Once the transposition and conformity checks are complete, the Commission will continue to be responsible for monitoring the results of the peer reviews.

Recommendation 2 – Updating the legislative framework

When, in line with the 2015 energy union package, the Commission presents a legislative proposal for an updated framework covering nuclear investment projects, it should take into account:

- the latest legislative and policy developments in the field of nuclear safety and the most recent Euratom directives;
- the latest changes in the nature of nuclear investment projects, notably new technologies and LTOs;
- the experience of its participation as an observer in the peer reviews.

Target implementation date: 2022

[51] As set in Article 43 of the Euratom Treaty.

80 The Commission contributes to improving nuclear safety and radiation protection in the EU by giving opinions on nuclear investment projects and verifying Member States' facilities for continuous monitoring of the level of radioactivity. However, our audit showed some limitations that may reduce the added value of the Commission's activities. We found that the Commission does not have robust procedures to prepare the opinions on nuclear investments (paragraphs ***60*** to ***65***) and to verify Member States' facilities for monitoring radioactivity (paragraphs ***66*** to ***73***). The lack of approved methodologies leaves high levels of discretion to the Commission, which compromises the completeness, consistency and coherence of these activities.

Recommendation 3 – Updating procedures

In order to ensure a consistent and coherent approach to check radioactivity monitoring facilities and to prepare opinions on nuclear investments, the Commission should establish internal procedures to ensure that the work is consistently performed, documented and reviewed.

Target implementation date: 2022

This Report was adopted by Chamber I, headed by Mr Joao Figueiredo, Member of the Court of Auditors, in Luxembourg at its meeting of 8 January 2020.

For the Court of Auditors

Klaus-Heiner Lehne
President

Annexes

Annex I – The Commission's checks

Table 1 – Transposition checks

	RWD	NSD	BSSD
Transposition deadline	23/08/2013	15/08/2017	06/02/2018
Notifications submitted by the deadline or before the launch of non-communication infringements	17	24	21
End of check on Member States (MS) that notified their transposing measures before the launch of non-communication infringements	11/2013	06/2018	ongoing[52]
Duration of the check on MS that notified their transposing measures before the launch of infringement proceedings (months) – target: 6 months[53]	3	10	ongoing
Number of MS that have not notified complete transposition at the time of this audit (July 2019)	0	1	8
Number of non-communication and non-completeness infringement proceedings launched	13	7	9
Time between LFNs and ROs (months)	24 to 29	6 to 9	8 to 10
Overall duration of infringement proceedings (months)	50[54]	ongoing	ongoing

[52] The Commission expects to finalise the checks in the first quarter of 2020; expected duration: 23/25 months.

[53] Commission, Better Regulation Toolbox 37.

[54] Duration of the longest infringement procedure.

Table 2 – Conformity checks

	RWD	NSD	BSSD
Start of the check	24/08/2013	01/06/2018	Not yet started
End of the check	06/2018	ongoing	Not yet started
Overall duration of the check (months) – target: 16/24 months[55]	57	ongoing	Not yet started
Number of checks (= MS) completed at the time of this audit	28	14	Not yet started
Number of infringements launched	15	0	Not yet started
Number of infringements open at the time of this audit	13	0	Not yet started

Table 3 – RWD National Programmes

	Non-communication	Non-compliance
Start of the check	23/08/2015	23/08/2015
End of the check	11/2015	05/2018
Overall duration of the check (months)	3	33
Number of infringements launched	9	17
Number of infringements open at the time of this audit	1	17

[55] Commission, Better Regulation Toolbox 37.

Annex II – Examples of non-conformity cases in the transposition of the RWD

RWD Article	Requirement	Non - conformity
5(1)(c)	Member States are required to set up a national framework that includes a licensing system for spent fuel and radioactive waste management activities and/or facilities.	The licensing system set up by some Member States did not include all activities related to the management of spent fuel or radioactive waste, such as disposal of the waste as well as siting, design, construction, and closure of the facilities.
6(3)	Member States must ensure that the competent regulatory authority is given the legal powers and human and financial resources to fulfil its obligations under the RWD.	Some Member States failed to demonstrate that their regulatory authority were given the necessary resources to fulfil its obligations under the RWD.
7(3)	Member States are required to ensure that the licensing requirements include a safety demonstration covering the development and operation of nuclear activities, and the development, operation and decommissioning or closure of nuclear facilities, including the post-closure phase in the case of disposal facilities.	Some Member States failed to ensure that the safety demonstration requirements covered all aspects.
7(5)	The national frameworks are required to include an obligation for licence holders to ensure adequate financial and human resources.	Some Member States failed to make any reference to adequate human resources.
8	The national frameworks are required to include an obligation for all parties to make arrangements for the education and training for their staff, as well as research and development activities to cover the needs of the National Plans.	Some Member States failed to ensure that all parties, including generators, licensees, the competent regulatory authorities and other authorities, were obliged to make the arrangements for education and training for their staff. The transposing measures of some Member States do not make any reference to research and development activities.

Glossary

Accident: Any unintended event which has, or may have, significant consequences from a radioactivity or nuclear safety perspective.

Added value: the value generated by EU action which is additional to the value that would have been created by Member State action alone.

Commission's opinions: Commission's opinions on nuclear investment projects given pursuant to the procedure set out in Articles 41 to 44 of the Euratom Treaty.

Emergency: An unexpected radiation or nuclear situation requiring immediate action to avert or mitigate serious adverse consequences.

Emergency preparedness: The state of readiness to take action that will mitigate the consequences of an emergency.

Emergency response: The performance of action to mitigate the consequences of an emergency.

EU Pilot: An informal dialogue between the Commission and a Member State on potential non-compliance with EU law, prior to the launch of a formal infringement procedure.

Incident: Any unintended event, the consequences or potential consequences of which are not negligible from the point of view of radiation protection or nuclear safety.

Ionising radiation: Energy transferred in the form of particles or electromagnetic waves, capable of directly or indirectly producing ions, i.e. atoms or molecules with an electric charge.

Irradiation: Exposure to radiation.

Licence: A legal document granting authorisation to carry out certain activities relating to the management of spent fuel or radioactive waste, or conferring responsibility for siting, designing, constructing, commissioning, operating, decommissioning or closing a spent fuel management or radioactive waste management facility or nuclear installation.

Long-term operation: Operation of a nuclear power plant beyond the time frame established in the licence, standards or regulations, provided it continues to meet licensing requirements.

Nuclear: Relating to or using energy released in nuclear fission or fusion.

Nuclear installation: A nuclear power plant, enrichment plant, nuclear fuel fabrication plant, reprocessing plant, research reactor facility, spent fuel Storage facility; and storage facilities for radioactive waste that are on the same site.

Radioactivity: The phenomenon whereby atoms undergo spontaneous random disintegration, usually accompanied by the emission of radiation.

Spent fuel: Nuclear fuel that has been removed from a reactor core following irradiation. It may be reprocessed, or disposed of if considered radioactive waste.

Stress test: Risk and safety assessments carried out on all EU nuclear power plants to measure their ability to withstand hazards such as earthquakes, flooding, terrorist attacks and aircraft collisions.

Undertaking: A natural or legal person with responsibility under national law for a radiation source or for performing an activity that can increase individuals' exposure to radiation from a radiation source.

Acronyms and abbreviations

BSSD: Basic Safety Standards Directive

CJEU: Court of Justice of the European Union

ECURIE: European Community Urgent Radiological Information Exchange

ENSREG: European Nuclear Safety Regulators Group

EP&R: Emergency Preparedness and Response

EURDEP: European Radiological Data Exchange Platform

IAEA: International Atomic Energy Agency

JRC: Joint Research Centre

LFN: Letter of Formal Notice

LTO: Long Term Operation

NEA: Nuclear Energy Agency

NSD: Nuclear Safety Directive

RO: Reasoned Opinion

RWD: Radioactive Waste and Spent Fuel Directive

TFEU: Treaty on the Functioning of the European Union

USIE: Unified System for Information Exchange in Incidents and Emergencies

WANO: World Association of Nuclear Operators

WENRA: Western European Nuclear Regulators' Association

REPLIES OF THE COMMISSION TO THE SPECIAL REPORT OF THE EUROPEAN COURT OF AUDITORS

"THE COMMISSION CONTRIBUTES TO NUCLEAR SAFETY IN THE EU, BUT UPDATES REQUIRED"

EXECUTIVE SUMMARY

I. Nuclear safety is a priority for the European Commission. The EU approach to nuclear safety is based on the principles of meeting the highest safety levels and aiming for continuous improvement, in order to protect people, to control hazards, to prevent and respond to emergencies and to mitigate any harmful consequences.

To this end, the EU has set up an advanced, legally binding, enforceable legal framework on nuclear safety, radiation protection, emergency preparedness and response, and radioactive waste and spent fuel management, anchored on the worldwide-shared principles of the international conventions and strengthened in the light of the lessons learned from the Fukushima nuclear accident and of the latest scientific developments.

IV. The European Commission has been given by the Treaties, as a rule, the right of initiative to propose new EU / Euratom legislation. However, it cannot itself adopt the proposed legislation; this is the prerogative of the two decision-making institutions, the European Parliament and/or the Council.

IX. See Commission replies to paragraphs 63 and 72.

OBSERVATIONS

25. The Commission strives to complete the conformity check within the 16 to 24-month benchmark, which is not a legal deadline and is calculated from the date of the communication of the national transposition measures. Thus, the check depends indeed on the communication of those measures by the Member States.

The Commission agrees with the statement by the ECA and notes that the delay could be explained by the fact that the Member States had to adopt a national programme for spent fuel and radioactive waste management for the first time by 23 August 2015.

38. Public communication in case of an emergency primarily falls under the remit of the Member States, in line with Article 3(1)(h) of Council Decision 87/600/Euratom. However, the Commission services prepare press releases and communicates these to the Commission's Spokesperson, as part of the ECURIE exercises.

As regards the training of national experts, the Commission organises, whenever needed, trainings for national competent authorities on ECURIE and EURDEP, in particular when there are changes to the system. The need for such training programmes is discussed and agreed during the ECURIE Competent Authorities meetings.

63. As regards the opinions on nuclear investment projects, to date, the Commission has used internal procedures based on the wording of the Euratom Treaty and the existing Regulations in force, i.e. *Council Regulation (EURATOM) No 2587/1999 of 2 December 1999 defining the investment projects to be communicated to the Commission in accordance with Article 41 of the Treaty establishing the European Atomic Energy Community (OJ L 315, 9.12.1999, p. 1-3),* and *Commission Regulation (EC) No 1209/2000 of 8 June 2000 determining procedures for effecting the communications prescribed under Article 41 of the Treaty establishing the European Atomic Energy Community (OJ L 138, 9.6.2000, p. 12-14)*.

64. The case described in this paragraph by ECA was a voluntary notification (i.e. project for an investment amount below the threshold defined by the legal framework) that falls under Article 1(4) of Council Regulation 2587/1999.

72. The verifications are based on the *Verification of environmental radioactivity monitoring facilities under the terms of Article 35 of the Euratom Treaty — Practical arrangements for the conduct of verification visits in Member States (OJ C 155, 4.7.2006, p. 2–5)*, the verification team's expertise and a comparison with arrangements in other Member States.

CONCLUSIONS AND RECOMMENDATIONS

74. The European Commission has been given by the Treaties, as a rule, the right of initiative to propose new EU / Euratom legislation. However, it cannot itself adopt the proposed legislation; this is the prerogative of the two decision-making institutions, the European Parliament and/or the Council.

Recommendation 1 – Updating the approach to monitoring transposition of Euratom Directives

The Commission accepts the recommendation.

The Commission accepts to define the necessary guidelines– to be established by internal decision of the responsible Commission service - that provide for a transposition risk assessment for future Euratom directives. This risk assessment will evaluate the key areas of these Directives, and the need to develop more detailed internal interpretative guidance and / or strategy to support the Commission staff in carrying out the compliance checks.

Recommendation 2 – Updating the legislative framework

The Commission accepts the recommendation.

80. See Commission replies to paragraph 63 and 72.

Recommendation 3 – Updating procedures

The Commission accepts the recommendation.

The Commission is prepared to establish – by decision of the responsible Commission service – appropriate internal procedures to ensure that the work of checking radioactivity monitoring facilities is consistently performed, documented and reviewed.

Timeline

Event	Date
Adoption of Audit Planning Memorandum (APM) / Start of audit	12.12.2018
Official sending of draft report to Commission (or other auditee)	21.11.2019
Adoption of the final report after the adversarial procedure	8.1.2020
Commission's (or other auditee's) official replies received in all languages	4.2.2020

PDF	ISBN: 978-92-847-4313-1	ISSN: 1977-5679	doi: 10.2865/45256	QJ-AB-20-002-EN-N
HTML	ISBN: 978-92-847-4289-9	ISSN: 1977-5679	doi: 10.2865/694224	QJ-AB-20-002-EN-Q

The primary responsibility for nuclear safety lies with nuclear installations' licence holders and national authorities. The specific responsibilities of the Commission in this area are to develop the Euratom legal framework and oversee its transposition in Member States; to verify Member States' radioactivity monitoring facilities; and to check the compatibility of nuclear investments with the Euratom Treaty. We conclude that overall the Commission used these competences well and contributed to nuclear safety in the EU. Our recommendations focus on the Commission's role in monitoring the transposition of Euratom directives, the framework under which it issues the opinions on nuclear investments, and the approach it applies when preparing the opinions and carrying out verifications of radioactivity monitoring facilities.

ECA special report pursuant to Article 287(4), second subparagraph, TFEU.

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