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NOTE

From: General Secretariat of the Council

To: Delegations

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Subject: Proposal for a COUNCIL REGULATION establishing a dedicated financial programme for decommissioning of nuclear facilities and management of radioactive waste, and repealing Council Regulation (Euratom) No 1368/2013

1. Delegations will find in the Annex the fourth revision of the above-mentioned proposal.
2. New text is **bold underlined**, deletions are ~~strikethrough~~.

Proposal for a

COUNCIL REGULATION

establishing a dedicated financial programme for decommissioning of nuclear facilities and management of radioactive waste, and repealing Council Regulation (Euratom) No 1368/2013

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Article 203 thereof,

Having regard to the proposal from the European Commission,

Having regard to the opinion of the European Parliament,

Whereas:

- (1) In line with the Rome Declaration¹, the Union budget should enable a Europe that is safe and secure; this is a dimension where the nuclear decommissioning programmes have contributed so far and may further contribute. After shut-down of a nuclear facility, the main positive impact to be achieved is the progressive decrease of the level of radiological hazard for the workers, the public and the environment in the concerned Member States but also in the Union as a whole.

¹ Declaration of the leaders of 27 member states and of the European Council, the European Parliament and the European Commission (25 March 2017)
<http://www.consilium.europa.eu/en/press/press-releases/2017/03/25/rome-declaration/pdf>

- (2) A dedicated spending financial programme can bring additional Union added value through becoming a benchmark within the Union for safely managing technological issues in nuclear decommissioning and disseminating knowledge. Such financial assistance should be provided on the basis of an ex ante evaluation identifying the specific needs and demonstrating the Union added value with the aim to support decommissioning of nuclear facilities and management of radioactive waste.
- (3) The activities covered by this Regulation should comply with applicable Union and national law. Such financial assistance should remain exceptional, without prejudice to the principles and objectives stemming from the legislation on nuclear safety, namely Council Directive 2009/71/Euratom², waste management, namely Council Directive 2011/70/Euratom³. The ultimate responsibility for nuclear safety and for the safety of spent fuel and radioactive waste management remains with the Member States.
- (4) According to the Protocol concerning the conditions and arrangements for admission of the Republic of Bulgaria and Romania to the European Union⁴, Bulgaria committed to the closure of units 1 and 2 and units 3 and 4 of the Kozloduy nuclear power plant by 31 December 2002 and 31 December 2006 respectively, and to the subsequent decommissioning of those units. In line with its obligations, Bulgaria shut down all units concerned within the respective deadlines.

² Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations (OJ L 172, 2.7.2009, p. 18)

³ 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, 2.8.2011, p. 48)

⁴ OJ L 157, 21.6.2005, p. 29

- (5) According to Protocol No 9 on unit 1 and unit 2 of the Bohunice V1 nuclear power plant in Slovakia⁵ attached to the 2003 Act of Accession, Slovakia committed itself to the closure of unit 1 and unit 2 of the Bohunice V1 nuclear power plant by 31 December 2006 and 31 December 2008 respectively, and to the subsequent decommissioning of those units. In line with its obligations, Slovakia shut down all units concerned within the respective deadlines.
- (6) In line with their obligations under the Accession Treaty and with Union assistance, Bulgaria and Slovakia have made significant progress towards the decommissioning of the Kozloduy and Bohunice V1 nuclear power plants. Further work is necessary in order to safely achieve the decommissioning end state. Based on the current decommissioning plans, completion of the decommissioning work is scheduled by the end of 2030 for Kozloduy nuclear power plant and by 2025 for the Bohunice V1 nuclear power plant.
- (7) The Joint Research Centre (JRC) of the European Commission was established by Article 8 of the Euratom Treaty. In application of this Article, Site agreements were signed during the period 1960-62 between the Community, Germany, Belgium, Italy and the Netherlands. In the two latter cases, national nuclear installations were transferred to the Community. An infrastructure geared to nuclear research and comprising new installations was put in place at the four sites. Some of these installations are still in use today while others have been shut down, in some instances more than 20 years ago, and have mostly become obsolete.

⁵ OJ L 236, 23.9.2003, p. 954

- (8) On the basis of Article 8 of the Euratom Treaty, and in line with Article 7 of Council Directive 2011/70/Euratom²⁴ the JRC should manage its historical nuclear liabilities and decommission its shut-down nuclear installations. Accordingly, the JRC decommissioning and waste management programme was launched in 1999 with a Communication to the European Parliament and the Council⁶, and since then the Commission has provided a regular update of the programme progress⁷.
- (9) The European Commission has assessed that the best option to satisfy requirements as per Articles 5(1)(f) and Article 7 of Council Directive 2011/70/Euratom is to pursue a strategy combining decommissioning and waste management activities together with negotiations between the JRC and host Member States to discuss the possibility of transferring of the decommissioning and spent fuel and radioactive waste management liabilities. The JRC should provide for and maintain adequate resources to fulfil its obligations with respect to the safety of spent fuel and radioactive waste management.

⁶ Historical liabilities resulting from nuclear activities carried out at the JRC under the Euratom Treaty – Decommissioning of obsolete Nuclear Installations and Waste Management, COM(1999)114 final

⁷ Communication from the Commission to the Council and the European Parliament - Decommissioning of nuclear installations and waste management - Nuclear liabilities arising out of the activities of the Joint Research Centre (JRC) carried out under the Euratom Treaty, SEC(2004)621 final

Communication from the Commission to the Council and the European Parliament - Decommissioning of Nuclear Installations and Management of Radioactive Waste: Management of Nuclear Liabilities arising out of the Activities of the Joint Research Centre (JRC) carried out under the Euratom Treaty, COM(2008)903 final

Communication from the Commission to the Council and the European Parliament - Decommissioning of Nuclear Installations and Management of Radioactive Waste: Management of Nuclear Liabilities arising out of the Activities of the Joint Research Centre (JRC) carried out under the Euratom Treaty, COM(2013)734 final

- (10) This Regulation responds to the needs identified for the Multiannual Financial Framework period of 2021-2027 and it lays down a financial envelope for the nuclear decommissioning assistance programmes of the Kozloduy nuclear power plant units 1 to 4 in Bulgaria (Kozloduy programme) and of Bohunice V1 nuclear power plant in Slovakia (Bohunice Programme), and for the decommissioning and spent fuel and radioactive waste management of the Commission's own nuclear facilities, which is to constitute the prime reference amount, within the meaning of point 17 of the Interinstitutional Agreement of 2 December 2013 between the European Parliament, the Council and the Commission on budgetary discipline, on cooperation in budgetary matters and on sound financial management⁸, for the European Parliament and the Council during the annual budgetary procedure.
- (11) Regulation (EU, Euratom) No [the new FR]⁹ (the ‘Financial Regulation’) applies to this Programme. It lays down rules on the implementation of the Union budget, including the rules on grants, prizes, procurement, indirect implementation, financial assistance, financial instruments and budgetary guarantees.

⁸ Interinstitutional Agreement of 2 December 2013 between the European Parliament, the Council and the Commission on budgetary discipline, on cooperation in budgetary matters and on sound financial management (OJ C 373, 20.12.2013, p. 1)

⁹ [full title; OJ reference].

(12) In accordance with the Financial Regulation, Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council¹⁰, Council Regulations (Euratom, EC) No 2988/95¹¹, Regulation (Euratom, EC) No 2185/96¹² and Regulation (EU) 2017/1939¹³, the financial interests of the Union are to be protected through proportionate measures, including the prevention, detection, correction and investigation of irregularities and fraud, the recovery of funds lost, wrongly paid or incorrectly used and, where appropriate, the imposition of administrative sanctions. In particular, in accordance with Regulations (EU, Euratom) No 883/2013 and (Euratom, EC) No 2185/96 the European Anti-Fraud Office (OLAF) may carry out investigations, including on-the-spot checks and inspections, with a view to establishing whether there has been fraud, corruption or any other illegal activity affecting the financial interests of the Union. In accordance with Regulation (EU) 2017/1939, the European Public Prosecutor's Office (EPPO) may investigate and prosecute fraud and other illegal activities affecting the financial interests of the Union as provided for in Directive (EU) 2017/1371 of the European Parliament and of the Council¹⁴. In accordance with the Financial Regulation, any person or entity receiving Union funds is to fully cooperate in the protection of the Union's financial interests, to grant the necessary rights and access to the Commission, OLAF, the EPPO and the European Court of Auditors (ECA) and to ensure that any third parties involved in the implementation of Union funds grant equivalent rights.

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- ¹⁰ Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council of 11 September 2013 concerning investigations conducted by the European Anti-Fraud Office (OLAF) and repealing Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Council Regulation (Euratom) No 1074/1999 (OJ L 248, 18.9.2013, p. 1)
- ¹¹ Council Regulation (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities financial interests (OJ L 312, 23.12.95, p. 1)
- ¹² Council Regulation (Euratom, EC) No 2185/96 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities (OJ L 292, 15.11.96, p. 2)
- ¹³ Council Regulation (EU) 2017/1939 of 12 October 2017 implementing enhanced cooperation on the establishment of the European Public Prosecutor's Office ('the EPPO') (OJ L 283, 31.10.2017, p. 1)
- ¹⁴ Directive (EU) 2017/1371 of the European Parliament and of the Council of 5 July 2017 on the fight against fraud to the Union's financial interests by means of criminal law (OJ L 198, 28.7.2017, p. 29)

- (13) This Regulation does not prejudice the outcome of any future State aid procedures that may be undertaken in accordance with Articles 107 and 108 of the Treaty on the Functioning of the European Union.
- (14) The amount of the appropriations allocated to the programme, as well as the programming period and the distribution of funds amongst the actions, may be reviewed based on the results of the mid-term and the final evaluation reports. Additional budgetary flexibility may be obtained by re-distributing funds amongst the actions where and when needed with priority on the finalisation of the decommissioning of Kozloduy nuclear power plant units 1 to 4 in Bulgaria and of Bohunice V1 nuclear power plant in Slovakia, and in line with the actions' progress.
- (15) ~~While knowledge management would continue as done under past programmes and would not pose significant new elements for Slovakia and Bulgaria, the two countries should make available the gained knowledge.~~ The Programme should also ensure **contribute to the** dissemination of knowledge, experience and lessons learnt on the decommissioning process in the Union, in coordination and synergy with the other relevant Union programme for decommissioning activities in Lithuania; as such measures bring the greatest Union added value and contribute to the safety of the workers and the general public as well as protection of the environment. ~~The program should furthermore ensure international comparisons of decommissioning projects~~ **The scope, procedure and economic aspects of cooperation can be provided in mutual agreements between Member States and/or with the Commission.**
- (16) The decommissioning of the nuclear facilities covered by this Regulation should be carried out with recourse to the best available technical expertise, and with due regard to the nature and technological specifications of the installations to be decommissioned, in order to ensure safety and the highest possible efficiency, thus taking into account international best practices.
- (17) An effective monitoring and control of the evolution of the decommissioning process should be ensured by Bulgaria, Slovakia and the Commission in order to assure the highest Union added value of the funding allocated under this Regulation, although the ultimate responsibility for the decommissioning rests with the two Member States concerned. This includes effective measurement of performance and the enacting of corrective measures where necessary.

- (18) Pursuant to paragraphs 22 and 23 of the Inter-institutional agreement for Better Law-Making of 13 April 2016, there is a need to evaluate this Programme on the basis of the information collected through specific monitoring requirements, while avoiding overregulation and administrative burdens, in particular on Member States. These requirements, where appropriate, can include measurable indicators, as a basis for evaluating the effects of the Programme on the ground.
- (19) The actions under the Kozloduy and Bohunice programmes should be identified within the boundaries defined by the decommissioning plans submitted by Bulgaria and Slovakia under the Council Regulation 2013/1368/Euratom. These plans defined the scope of these programmes, the decommissioning end-states and end-dates; they cover the decommissioning activities, their associated schedule, costs and required human resources.
- (20) Actions under the Kozloduy and Bohunice programmes should be conducted with a joint financial effort of the Union and Bulgaria and Slovakia respectively, in line with the co-financing practice established under the predecessor programmes.
- (21) Council Regulation (Euratom) No 1368/2013¹⁵ should be repealed.
- (22) Due account was taken of the Court of Auditors' Special report No 22/2016 on Union financial assistance for the decommissioning of nuclear plants in Bulgaria, Lithuania and Slovakia, its recommendations and the reply from the Commission.
- (23) In order to ensure uniform conditions for the implementation of Article 3 of this Regulation, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council¹⁶.

¹⁵ Council Regulation (Euratom) No 1368/2013 of 13 December 2013 on Union support for the nuclear decommissioning assistance programmes in Bulgaria and Slovakia, and repealing Regulations (Euratom) No 549/2007 and (Euratom) No 647/2010 (OJ L 346, 20.12.2013, p. 1)

¹⁶ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by the Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13)

- (24) Horizontal financial rules adopted by the European Parliament and the Council on the basis of Article 322 of the Treaty on the Functioning of the European Union apply to this Regulation. These rules are laid down in the Financial Regulation and determine in particular the procedure for establishing and implementing the budget through grants, procurement, prizes, indirect implementation, and provide for checks on the responsibility of financial actors. [Rules adopted on the basis of Article 322 of the Treaty on the Functioning of the European Union also concern the protection of the Union's budget in case of generalised deficiencies as regards the rule of law in the Member States, as the respect for the rule of law is an essential precondition for sound financial management and effective Union funding].
- (25) Reflecting the importance of tackling climate change in line with the Union's commitments to implement the Paris Agreement and the United Nations Sustainable Development Goals, this Programme will contribute to mainstream climate action in the Union's policies and to the achievement of an overall target of [25 %] of the Union budget expenditures supporting climate objectives. Relevant actions will be identified during the Programme's preparation and implementation, and reassessed in the context of its mid-term evaluation.
- (26) The types of financing and the methods of implementation under this Regulation should be chosen on the basis of their ability to achieve the specific objectives of the actions and to deliver results, taking into account, in particular, the costs of controls, the administrative burden, and the expected risk of non-compliance. This should include consideration of the use of lump sums, flat rates and unit costs, as well as financing not linked to costs as referred to in Article 125(1) of the Financial Regulation.

HAS ADOPTED THIS REGULATION:

Article 1
Subject matter

This Regulation establishes the Dedicated Financial Programme for the 'Decommissioning of Nuclear Facilities and Management of Radioactive Waste' (the 'Programme'),-with the focus on needs identified on a current basis. For the period of the Multiannual Financial Framework 2021-2027, it will support Bulgaria and Slovakia to safely decommission Kozloduy nuclear power plant units 1 to 4 in Bulgaria (Kozloduy programme) and **units 1 and 2 of** Bohunice V1 nuclear power plant in Slovakia (Bohunice Programme), including management of radioactive waste from decommissioning and the implementation of the decommissioning process and management of radioactive waste of the Commission's own nuclear installations at the Joint Research Centre (JRC) sites.

It lays down the objectives of the Programme, the budget for the period 2021 – 2027, the forms of the European Atomic Energy Community (the 'Community') funding and the rules for providing such funding.

Article 2
Definitions

For the purposes of this Regulation, the following definitions apply:

- (1) 'decommissioning' means administrative and technical measures which allow the removal of some or all of the regulatory controls from a nuclear facility and which aim at ensuring the long term protection of the public and the environment including the reduction of the levels of residual radionuclides in the materials and on the site of the facility;

- (2) 'decommissioning plan' means the document containing detailed information on the proposed decommissioning and covering the following: the selected decommissioning strategy; the schedule, type and sequence of decommissioning activities; the waste management strategy applied, including clearance; the proposed end state; the storage and disposal of the waste from decommissioning; the timeframe for decommissioning; the cost estimates for the completion of decommissioning; and the objectives, expected results, milestones, target dates, as well as the corresponding key performance indicators, including, as appropriate, earned value based indicators. The plan is prepared by the nuclear facility license holder and is reflected in the multiannual work programmes of the Programme;
- (3) 'Bohunice programme' means the part of the Programme that concerns the nuclear decommissioning of reactor units 1 and 2 of the Bohunice V1 nuclear power plant, located in Jaslovské Bohunice, Slovakia;
- (4) 'Kozloduy programme' means the part of the Programme that concerns the nuclear decommissioning of reactor units 1, 2, 3 and 4 of the Kozloduy nuclear power plant, located in Kozloduy, Bulgaria;
- (5) 'JRC decommissioning and waste management programme' means the part of the Programme that concerns the nuclear decommissioning and radioactive waste management of the Commission sites operated by its Directorate General Joint Research Centre (JRC);
- ~~(6) 'knowledge dissemination' means (.....)~~

Article 3
Programme objectives

1. The Programme has the general objective to provide funding for decommissioning of nuclear facilities and management of radioactive waste, in line with the identified needs.
2. On the basis of the current needs for the period of 2021-2027 the Programme aims in particular to assist Bulgaria and Slovakia in implementing the Kozloduy decommissioning programme and the Bohunice decommissioning programme, including management of radioactive waste from decommissioning respectively, with specific emphasis on managing the radiological safety challenges thereof and to support the JRC decommissioning and waste management programme, whilst ~~ensuring~~ **contributing** to make available knowledge thereby generated and experience gained on nuclear decommissioning. The knowledge will be structured and disseminated to Member States by the JRC in a coordinated way.

The specific objectives are as follows:

- (a) to carry out the activities included in the respective decommissioning plans, dismantling and decontamination of the Kozloduy and Bohunice reactors, including associated systems, structures and components, auxiliary buildings and management of radioactive waste and human resources support and to pursue their release from regulatory controls;
- (b) to support the decommissioning plan to dismantle and decontaminate nuclear installations located at the Commission's nuclear sites **and start discussions on the possibility of transferring related nuclear liabilities to the JRC host Member States. Such possibility shall be subject to the an agreement between the Commission and the Host Member States and shall fully comply with Council Directive 2011/70/Euratom¹⁷;**

¹⁷ 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, 2.8.2011, p. 48–56.

- (c) **for the JRC** to develop ties and exchanges among Union stakeholders, ~~in particular the industry,~~ on nuclear decommissioning, with a view to ensure dissemination of knowledge and return of experience in all relevant areas such as research and innovation, regulation, training and to develop potential Union synergies.
3. The detailed description of the specific objectives is set out in the Annexes I, II and III. Based on the result of the evaluation referred to in Article 10, the Commission may modify, by means of implementing acts, the Annexes I or II, in accordance with the examination procedure referred to in Article 12(2).

Article 4

Budget

1. The financial envelope for the implementation of the Programme for the period 2021 - 2027 shall be [EUR 466 000 000] in [current prices].
2. The indicative distribution of the amount referred to in paragraph 1 shall be:
- (a) [EUR 63 000 000] for actions under the Kozloduy programme;
 - (b) [EUR 55 000 000] for actions under the Bohunice programme;
 - (c) [EUR 348 000 000] for actions under the JRC decommissioning and waste management programme, including actions for accomplishing the specific objective defined in Article 3, paragraph 2 (c).
3. The amount referred to in paragraph 1 may cover expenses related to the activities included in the respective decommissioning plans for the implementation of the Programme, such as preparatory, monitoring, control, audit and evaluation activities including corporate information technology systems.
4. Budgetary commitments for actions extending over more than one financial year may be broken down over several years into annual instalments.

Article 5
Implementation and forms of Union funding

1. The Programme shall be implemented in direct management in accordance with the Financial Regulation or in indirect management with bodies referred to in Article 62(1)(c) of the Financial Regulation.
2. The Programme may provide funding in any of the forms laid down in the Financial Regulation.

Article 6
Eligible actions

Only actions implementing the objectives referred to in Article 3 and described in Annexes I, II and III shall be eligible for funding.

Article 7
Co-financing rates

The maximum Union co-financing rate applicable under the Kozloduy programme or the Bohunice programme shall be no higher than [50%], without prejudice to Art. 190 (1) of the Financial Regulation. The remaining co-financing shall be provided by Bulgaria and Slovakia respectively. The activities necessary for the knowledge dissemination will be funded at a rate up to 100% by the Union.

Article 8

Work programmes

1. The Bohunice programme and the Kozloduy programme shall be implemented by multiannual work programmes in accordance with Article 110 of the Financial Regulation. These multiannual work programmes shall reflect the decommissioning plans that shall serve as baseline for programme monitoring and evaluation **and shall identify knowledge output, knowledge products, respectively.**
2. The JRC decommissioning and waste management programme shall be implemented by multi-annual work programmes in accordance with the procedure set out in Article 4 of Commission Decision 96/282/Euratom on the reorganization of the Joint Research Centre.

Article 9

Monitoring and reporting

1. Indicators to report on progress of the Programme towards the achievement of the objectives set out in Article 3 are set in the Annex IV.
2. The performance reporting system shall ensure that data for monitoring programme implementation and results are collected efficiently, effectively, and in a timely manner. To that end, reporting requirements proportionate to the overall costs and related programme risks shall be imposed on recipients of Union funds and (where relevant) Member States.
3. At the end of each year, the Commission shall elaborate a progress report on the implementation of the work carried out in the previous years and present it to the European Parliament and to the Council.

Article 10
Evaluation

1. Evaluations shall be carried out in a timely manner to feed into the decision-making process.
2. The interim evaluation of the Programme shall be performed once there is sufficient information available about the implementation of the Programme, but no later than four years after the start of the period specified in Article 1. The interim evaluation shall also address the scope for modification of the multiannual work programme referred to in Article 8.
3. At the end of the implementation of the Programme, but no later than five years after the end of the period specified in Article 1 of this Regulation, a final evaluation of the Programme shall be carried out by the Commission.
4. The Commission shall communicate the conclusions of the evaluations accompanied by its observations, to the European Parliament and the Council.

Article 11
Audits

Audits on the use of the Union and national contribution carried out by persons or entities, including others than those mandated by the Union Institutions or bodies, shall form the basis of the overall assurance pursuant to Article 127 of the Financial Regulation.

Article 12
Committee

1. The Commission shall be assisted by a committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

Where the opinion of the committee is to be obtained by written procedure, that procedure shall be terminated without result when, within the time-limit for delivery of the opinion, the chair of the committee so decides or a simple majority of committee members so requests.

Article 13
Information, communication and publicity

1. The recipients of Union funding shall acknowledge the origin and ensure the visibility of the Union funding (in particular when promoting the actions and their results) by providing coherent, effective and proportionate targeted information to multiple audiences, including the media and the public.
2. The Commission shall implement information and communication actions relating to the Programme, and its actions and results. Financial resources allocated to the Programme shall also contribute to the corporate communication of the political priorities of the Union, as far as they are related to the objectives referred to in Article 3.

Article 14
Repeal

Regulation (Euratom) No 1368/2013 is repealed.

Article 15

Transitional provisions

1. This Regulation shall not affect the continuation or modification of the actions under Regulation (Euratom) No 1368/2013, which shall continue to apply to the actions concerned until their closure.
2. The financial envelope for the Programme may also cover technical and administrative assistance expenses necessary to ensure the transition between the Kozloduy and Bohunice programmes and the measures adopted under their predecessor, the Regulation (Euratom) No 1368/2013.
3. If necessary, appropriations may be entered in the budget beyond 2027 to cover the expenses provided for in Article 4(3) of this Regulation, to enable the management of actions not completed by 31 December 2027.

Article 16

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 1 January 2021.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the Council

The President

1. The main general objective of the Kozloduy programme is to assist Bulgaria in managing the radiological safety challenges of the decommissioning of Kozloduy nuclear power plant units 1-4. The major safety challenges to be addressed by the programmes are:
 - (a) Dismantling and decontamination of the reactors' buildings and components in accordance with the decommissioning plans; progress has to be measured by the quantity and type of materials removed as well as earned value;
 - (b) Safe management of the decommissioning and legacy waste, activated materials and dismantling materials including their decontamination up to interim storage or to disposal (depending on the waste category), completion of the waste and material management infrastructure where necessary. This objective has to be accomplished in accordance with the decommissioning plan **and necessary RAW management**; progress has to be measured by the quantity and type of material released from regulatory control and waste safely stored or disposed as well as earned value;
 - (c) Continue downgrading of radiological hazards; this objective has to be measured through the safety assessments of the activities and the facility, identifying ways in which potential exposures could occur and estimating the probabilities and magnitude of potential exposures. Release of the facilities from regulatory control up to corresponding regulatory free release levels is planned by 2030 in the Kozloduy programme.

2. The main general objective of the programme is complemented by the aim of enhancing the EU added value of the programme through **contribution to the** dissemination of knowledge (thereby generated) to all EU Member States on the decommissioning process. In the financing period starting as of 2021, the programme has to deliver the following:

- 3.1. develop ties and exchanges among EU stakeholders (e.g. Member States, safety authorities, utilities and decommissioning operators);
- 3.2. document explicit knowledge and make it available through multi-lateral knowledge transfers on decommissioning and waste management governance issues, managerial best practices, and technological challenges and decommissioning processes at both operational and organisational level, with a view to develop potential EU synergies.

These activities can be Union funded at a rate of up to 100%, ~~under the budget line of Article 4(2)(c).~~

Progress is to be measured by the number of knowledge products created ~~and their outreach.~~

4. The disposal of spent fuel and radioactive waste in a deep geological repository is excluded from the scope of the programme, and has to be developed by Bulgaria in its national programme for the management of spent fuel and radioactive waste as required by the relevant Council Directive 2011/70/Euratom.

1. The main general objective of the Bohunice programme is to assist Slovakia in managing the radiological safety challenges of the decommissioning of Bohunice V1 nuclear power plant units 1 and 2. The major safety challenges to be addressed by the programmes are:
 - (a) Dismantling and decontamination of the reactors' buildings and components in accordance with the decommissioning plans; progress has to be measured by the quantity and type of materials removed as well as earned value;
 - (b) Safe management of the decommissioning and legacy waste, activated materials and dismantling materials including their decontamination up to interim storage or to disposal (depending on the waste category), including the completion of the waste and material management infrastructure where necessary. This objective has to be accomplished in accordance with the decommissioning plan **and necessary RAW management**; progress has to be measured by the quantity and type of material released from regulatory control and waste safely stored or disposed as well as earned value;
 - (c) Continue downgrading of radiological hazards; this objective has to be measured through the safety assessments of the activities and the facility, identifying ways in which potential exposures could occur and estimating the probabilities and magnitude of potential exposures. Release of the facilities from regulatory control up to corresponding regulatory free release levels is planned by 2025 in the Bohunice programme.

2. The main general objective of the programmes is complemented by the aim of enhancing the EU added value of the programme through **contribution to the** dissemination of knowledge (thereby generated) to all EU Member States on the decommissioning process. In the financing period starting as of 2021, the programme has to deliver the following:
 - 3.1. develop ties and exchanges among EU stakeholders (e.g. Member States, safety authorities, utilities and decommissioning operators);

3.2. document explicit knowledge and make it available through multi-lateral knowledge transfers on decommissioning and waste management governance issues, managerial best practices, and technological challenges and decommissioning processes at both operational and organisational level, with a view to develop potential EU synergies.

These activities can be Union funded at a rate of up to 100%, ~~under the budget line of Article 4(2)(e).~~

Progress is to be measured by the number of knowledge products created ~~and their outreach.~~

4. The disposal of spent fuel and radioactive waste in a deep geological repository is excluded from the scope of the programme, and has to be developed by Slovakia in its national programme for the management of spent fuel and radioactive waste as required by the relevant Council Directive 2011/70/Euratom.

1. The main general objective of the JRC D&WM programme is to pursue the decommissioning of the Commission's JRC installations in four sites: JRC-Geel in Belgium, JRC-Karlsruhe in Germany, JRC-Ispra in Italy and JRC-Petten in the Netherlands and to safely manage the spent fuel, **the nuclear material** and radioactive waste. **The main general objective of the programme is complemented by the aim of enhancing the EU added value of the programme through the dissemination of knowledge (thereby generated) to all EU Member States on the decommissioning process.** Activities financed under this programme in the period 2021-2027 have to deliver the following:

1.1. For all sites:

- (a)** Explore and develop options for a potential transfer of decommissioning and waste management liabilities to the host Member State in the case of mutual agreement;
- (b)** **Safely manage radioactive waste, nuclear material and spent fuel;**
- (c)** **Develop ties and exchanges among EU stakeholders (e.g. Member States, safety authorities, utilities and decommissioning operators);**
- (d)** Document explicit knowledge and make it available through multi-lateral knowledge transfers on decommissioning and waste management governance issues, managerial best practices, and technological challenges and decommissioning processes at both operational and organisational level, with a view to develop potential EU synergies.

1.2. At JRC-Ispra (depending on release of the relevant authorisations by the Italian ~~s~~**Safety Authorities**):

- (a)** Retrieval, treatment and safe storage of the historical waste;
- (b)** Retrieval, treatment and safe storage of nuclear material and spent fuel;
- (c)** Decommissioning of ~~licensed~~ **shut-down** nuclear facilities;
- (d)** ~~Safe management of decommissioning radioactive waste and materials.~~

1.3. At JRC-Karlsruhe (**depending on release of the relevant authorisations by the German safety authorities**):

- (a)** Decommissioning of obsolete equipment;

~~Safe management of decommissioning radioactive waste and materials;~~
- (b)** ~~Reduced~~ **Minimization of** the inventory of **radioactive waste**, ~~obsolete~~ nuclear material and spent fuel;
- (c)** Decommissioning of shut-down facilities;
- (d)** Preparatory phases of the decommissioning of building parts

1.4. At JRC-Petten (**depending on release of the relevant authorisations by the Dutch safety authorities**):

- ~~Safe management of historical and decommissioning waste and materials;~~
- (a)** **Minimization of the** ~~Reduced~~ inventory of ~~obsolete~~ **radioactive waste**, nuclear material and spent fuel.
- (b)** Preparatory phases of the decommissioning of the HFR.

1.5. At JRC-Geel (**depending on release of the relevant authorisations by the Belgian safety authorities**)

(a) Decommissioning of obsolete equipment;

(b) **Minimization of the inventory of radioactive waste and nuclear material;**

(c) **Preparatory phases of the decommissioning of building parts**

Progress has to be measured as appropriate by the quantity and type of safely stored or disposed of waste, by the quantity and type of safely stored or disposed of nuclear material and spent fuel, by the quantity and type of materials removed. The programme progress has to be generally measured **by expected results, milestones, target dates, as well as the corresponding key performance indicators, including, as appropriate, earned value based indicators**. ~~also by earned value.~~

2. The main general objective of the programme is complemented by the aim of enhancing the EU added value of the programme through dissemination of knowledge (thereby generated) to all EU Member States on the decommissioning process. In the financing period starting as of 2021, the programme has to deliver the following:

2.1. develop ties and exchanges among EU stakeholders (e.g. Member States, safety authorities, utilities and decommissioning operators);

2.2. document explicit knowledge and make it available through multi-lateral knowledge transfers on decommissioning and waste management governance issues, managerial best practices, and technological challenges and decommissioning processes at both operational and organisational level, with a view to develop potential EU synergies.

Progress is to be measured by the number of knowledge products created and their outreach.

3. The disposal of spent fuel and radioactive waste in a deep geological repository is included in the scope of the programme, as required by the relevant Council Directive 2011/70/Euratom.

Indicators

- (1) Radioactive waste management:
 - (a) quantity and type of waste safely stored or disposed of with annual objectives by type, meeting the milestones of the Programme.
 - (2) Dismantling and decontamination:
 - (a) quantity and type of materials removed with annual objectives by type, meeting the milestones of the Programme.
 - ~~(3) Knowledge dissemination:~~
 - ~~(a) number of ties and exchanges among Union stakeholders on nuclear decommissioning.~~
 - (4) Transparency:
 - (a) Rate of actions resulting from calls for tenders.
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