

Brussels, 13.6.2018 COM(2018) 467 final

ANNEXES 1 to 4

# **ANNEXES**

# to the

# **Proposal for a Council Regulation**

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

{SWD(2018) 343 final}

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#### **ANNEX I**

- 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' primary circuit and big components in accordance with the decommissioning plan; 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 up to interim storage or to disposal (depending on the waste category), including the completion of the waste management infrastructure where necessary. This objective has to be accomplished in accordance with the decommissioning plan; progress has to be measured by the quantity and type of safely stored or disposed of waste 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. Removal of the facilities from regulatory control is planned by 2030 in the Kozloduy programme.
- 2. Projects and activities funded in the period 2021-2027 are subject to a maximum EU co-financing rate set at 50%.
- 3. 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:
  - 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, with a view to develop potential EU synergies.

These activities can be Union funded at a rate of up to 100%.

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.

#### **ANNEX II**

- 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 of the reactors' primary circuit and big components in accordance with the decommissioning plan; 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 up to interim storage or to disposal (depending on the waste category), including the completion of the waste management infrastructure where necessary. This objective has to be accomplished in accordance with the decommissioning plan; progress has to be measured by the quantity and type of safely stored or disposed of waste 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. Removal of the facilities from regulatory control is planned by 2025 in the Bohunice programme.
- 2. Projects and activities funded in the period 2021-2027 are subject to a maximum EU co-financing rate set at 50%.
- 3. The main general objective of the programmes 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:
  - 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, with a view to develop potential EU synergies.

These activities can be Union funded at a rate of up to 100%.

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.

#### **ANNEX III**

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 and radioactive waste until the transfer of responsibilities to the host Member State. Activities financed under this programme in the period 2021-2027 have to deliver the following:

# 1.1. For all sites:

- 1.1.1. Explore and develop options for anticipated transfer of decommissioning and waste management liabilities to the host Member State.
- 1.2. At JRC-Ispra (depending on release of the relevant authorisations by the Italian Safety Authorities):
- 1.2.1. Retrieval, treatment and safe storage of the historical waste until transfer of ownership to the host Member State;
- 1.2.2. Retrieval, treatment and safe storage of nuclear material and spent fuel until transfer of ownership to the host Member State;
- 1.2.3. Decommissioning of licensed nuclear facilities;
- 1.2.4. Safe management of decommissioning radioactive waste and materials.

#### 1.3. At JRC-Karlsruhe:

- 1.3.1. Decommissioning of obsolete equipment;
- 1.3.2. Safe management of decommissioning radioactive waste and materials;
- 1.3.3. Reduced inventory of obsolete nuclear material and spent fuel;
- 1.3.4. Decommissioning of shut-down facilities;
- 1.3.5. Preparatory phases of the decommissioning of building parts

#### 1.4. At JRC-Petten:

- 1.4.1. Safe management of historical and decommissioning waste and materials;
- 1.4.2. Reduced inventory of obsolete nuclear material and spent fuel.
- 1.4.3. Preparatory phases of the decommissioning of the HFR

#### 1.5. At JRC-Geel:

- 1.5.1. Decommissioning of obsolete equipment;
- 1.5.2. Safe management of decommissioning radioactive waste and materials.

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 measure 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, 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.

# **ANNEX IV**

# Indicators

- (1) Radioactive waste management:
  - (a) quantity and type of waste safely stored or disposed of
- (2) Dismantling and decontamination:
  - (a) quantity and type of materials removed
- (3) Knowledge dissemination:
  - (a) number of knowledge products created and their outreach.