EUROPEAN
COMMISSION

Brussels, 25.4.2013
COM(2013) 240 final

REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL AND THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE

on the implementation by the Member States of Council Directive 2006/117 EURATOM on the supervision and control of shipments of radioactive waste and spent fuels

{SWD(2013) 150 final}

REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL AND THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE

on the implementation by the Member States of Council Directive 2006/117 EURATOM on the supervision and control of shipments of radioactive waste and spent fuels

TABLE OF CONTENTS

1. Introduction 4
1.1. Background 4
1.2. Legal framework 5
1.3. General principles for supervision and control of shipments 6
2. Implementation of the general provisions 6
2.1. Transposition of the Directive 6
2.2. Standard document for the supervision and control of shipments 7
2.3. Competent authorities 7
2.4. Transmission 7
2.5. Advisory committee 8
2.6. Regular reports 8
3. Reporting from Member States 9
3.1. Shipments 9
3.2. Exports out of the Community 9
4. Conclusions 10

1. INTRODUCTION

Council Directive 2006/117/Euratom[1] lays down a Community system of supervision and control of transboundary shipments of radioactive waste and spent nuclear fuel, so as to guarantee an adequate protection of the population. This Directive applies to transboundary shipments whenever the country of origin or the country of destination or any country of transit is a Member State of the Community. It ensures that Member States concerned are informed about shipments of radioactive waste and spent nuclear fuel to or via their territory with the obligation to give either their consent or reasoned refusal to the shipments.

The Directive foresees periodical reporting from Member States to the Commission and from the Commission to the European Parliament, to the Council and to the European Economic and Social Committee. The purpose of the reporting is to provide a useful overview of authorisations given Community-wide and to allow identification of practical difficulties encountered by the Member States in implementing the provisions of the Directive and the solutions applied.

This is the first report from the Commission on the implementation of Council Directive 2006/117/Euratom. Following the introduction, this report will provide:

– Feedback on the implementation of the general provisions (Chapter 4) of the Directive;

– A summary overview of the information from the Member States reporting to the Commission on the implementation of the Directive. This information has been established in consultation with the individual Member States. Details on the implementation of the Directive by the Member States are presented in the Commission Staff Working Document SWD(2013)150.

The conclusion of this report will give an outlook on the challenges that require further attention and that will be addressed in close cooperation with the advisory committee and the Member States.

1.1. Background

All EU Member States produce radioactive waste, generated by numerous activities, such as electricity production in nuclear power plants and radioisotope applications in medicine, industry, agriculture, research and education. The operation of nuclear reactors also generates spent fuel. Spent fuel means nuclear fuel that has been irradiated in and permanently removed from a reactor core. When spent fuel is unloaded from a reactor core, it is stored in dedicated ponds adjacent to the reactor to allow the initial heat and radiation levels to decrease. From the reactor site, spent fuel is transported by road, rail or sea to either an interim storage site or a reprocessing plant where it will be reprocessed.

Fourteen out of twenty seven Member States have nuclear power reactors in operation, and further two Member States have nuclear power reactors which are being decommissioned[2]. Most Member States have research reactors.

Each Member State is fully responsible for the choice of its national policy on the management of the radioactive waste and spent fuel. Spent fuel may either be considered as a usable resource that can be reprocessed or be destined for disposal if regarded as radioactive

[1] OJ L 337, 5.12.2006, p. 21.

[2] The 14 Member States which have nuclear power reactors in operation are Belgium, Bulgaria, Czech Republic, Finland, France, Germany, Hungary, the Netherlands, Romania, Slovakia, Slovenia, Spain, Sweden and the UK; Italy and Lithuania only have nuclear power reactors under decommissioning.

waste. Spent fuel requires therefore particular attention. Regardless of the choice made by the Member States for the management of their radioactive waste and spent fuel, transport operations of those materials are necessary and occur between Member States and into, and out of the Community.

1.2. Legal framework

Operations involved in shipments of radioactive waste or spent fuel are subject to a number of requirements under Community[3] legislation and international legally binding Conventions[4] regarding in particular the safe transport of radioactive material and the conditions under which radioactive waste or spent fuel is disposed of or stored in the country of destination.

The Community legislation for the health protection of workers and the general public requires that shipments of radioactive waste or spent fuel between Member States and into and out of the Community be subject to a compulsory and common system of prior authorisation. This system of prior authorisation for shipments, established in 1992[5], was modified significantly in 2006 with the adoption of the Directive on the supervision and control of shipments of radioactive waste and spent fuel, hereinafter "Shipments Directive"[6]. The provisions of the 1992 Directive needed to be amended in the light of experience; to clarify and add concepts and definitions, to address situations that had been omitted in the past and to simplify the existing procedure for the shipment of radioactive waste between Member States. Modifications were also necessary in order to guarantee consistency with other Community and international provisions, and in particular with the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, to which the Community acceded on 2 January 2006.

The obligations under the Shipments Directive are without prejudice to the right of Member States to export their spent fuel for reprocessing. Nothing in the Directive implies that a Member State of destination has to accept shipments of radioactive waste and spent fuel for final treatment or disposal except in the case of reshipment (return to the country of origin). Any refusal of such shipments is to be justified on the basis of the criteria set out in the Directive. Furthermore, the Shipments Directive prohibits the export of radioactive waste or spent fuel to African, Caribbean or Pacific (ACP) countries or to a third country which does not have the resources to manage the radioactive waste or spent fuel safely.

The recently adopted Council Directive 2011/70/Euratom[7], hereinafter "Waste Directive", introduces additional binding conditions in case of shipment of radioactive waste, including spent fuel considered as waste in case of disposal. The general principle under Article 4(4) of the Waste Directive foresees that radioactive waste shall be disposed of in the Member State in which it was generated, unless at the time of shipment an agreement has entered into force between the Member States concerned and another Member State or a third country to use a disposal facility in one of them. However such an agreement is also subject to criteria established by the Commission in accordance with Article 16(2) of the Shipments Directive

---

3 In particular, Council Directive of 13 May 1996 laying down basic safety standards for the health protection of the general public and workers against the dangers of ionizing radiation. OJ L 159, 29.6.1996, p. 1.

4 In particular the IAEA Joint Convention on the Safety of Spent fuel Management and on the Safety of Radioactive Waste Management.

5 Council Directive 92/3/Euratom of 3 February 1992; OJ L 35, 12.2.1992, p. 24.

6 Council directive 2006/117 EURATOM of 20 November 2006 on the supervision and control of shipments of radioactive waste and spent fuel.

7 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.

and the provisions of the Waste Directive requesting among others such a disposal facility to be already safely in operation at the time of shipment.

The Waste Directive does not affect the freedom of Member States to accept spent fuel or waste for processing or reprocessing from third countries and send it back to its country of origin. Similarly, Member States remain free to ship their radioactive waste or spent fuel for processing or reprocessing to another Member State or to a third country. In both cases, the ultimate responsibility for the safe and responsible disposal of those materials, including any waste as a by-product, remains with the Member State or third country from which the radioactive material was shipped.

1.3. General principles for supervision and control of shipments

A holder[8] who plans to carry out an intra-Community shipment of radioactive waste or spent fuel or to arrange for such a shipment to be carried out must submit a duly completed application to the competent authorities of the Member State of origin. A single application may cover several shipments if these share the same characteristics and if the route (countries and borders crossed) and the competent authorities are the same.

Where radioactive waste or spent fuel is to be imported into the Community, the consignee must submit this application to the competent authorities of the Member State of destination. Where a shipment is made from a Member State to a third country, the competent authorities in the Member State of origin must contact the relevant authorities in the country of destination.

The shipment cannot be made until the competent authorities of the country of destination and of any country of transit have notified the competent authorities of the country of origin of their approval. The Shipments Directive stipulates a period of two months after receipt of the application for notification of approval or refusal. Refusal from a Member State of destination or transit must be justified with regard to the legislation on the shipment and management of radioactive waste or spent fuel or on the grounds of relevant national, Community or international legislation applicable to the transport of radioactive material.

The competent authorities in Member States of transit or destination may add conditions to the shipment. Nevertheless, for shipments within the Community, it is not possible to lay down conditions which are more stringent than those laid down by the national law of a Member State on the shipment of radioactive waste on its own territory.

Finally, if the conditions applying to the shipment are not complied with or the shipment cannot be completed, the competent authorities of the Member State of origin must ensure that the radioactive waste or the spent fuel in question is taken back by the holder unless an alternative safe arrangement can be made.

2. IMPLEMENTATION OF THE GENERAL PROVISIONS

2.1. Transposition of the Directive

The Shipments Directive required that the Member States had to bring into force before 25 December 2008 the laws, regulations and administrative provisions necessary to comply with the Directive.

[8] Holder means any natural or legal person who, before carrying out a shipment of radioactive waste or spent fuel is responsible under the applicable national law for such materials and plans to carry out a shipment to a consignee;

Although most Member States met this deadline, a few Member States did not transpose the Directive in time and the Commission opened infringement proceedings against them. The Member States in question subsequently communicated their measures to transpose the Directive and the Commission was able to close these cases during the second half of 2009, with the exception of Greece, whose transposition measures were communicated in September 2010.

Since the end of 2010 the transposition of Council Directive 2006/117/Euratom is completed and it can be considered as being implemented in all EU Member States.

2.2. Standard document for the supervision and control of shipments

The Shipments Directive foresees the use of a standard document for all shipments within the scope of the Directive. Taking into account past experience a new Commission Decision establishing the standard document for the supervision and control of shipments of radioactive waste and spent fuel was published in the *Official Journal of the European Union* in April 2008[9].

For the shipments of radioactive waste and of spent fuel (including spent fuel destined for final disposal and as such categorised as waste) the standard document provides in its annex the forms for: the application of authorisation; the acknowledgement of receipt of application; the authorisation or refusal of shipment; the description of consignment/list of packages as well as the acknowledgement of receipt of shipment. The standard document also includes a list of minimum requirements of a duly completed application.

Following an inconsistency between Council Directive 2006/117/Euratom and the explanatory notes to Commission Decision C(2008)793 of 5 March 2008 establishing the standard document for the supervision and control of shipments of radioactive waste and spent fuel referred to in Council Directive 2006/117/Euratom (2008/312/Euratom), a corrigendum was published in the OJ[10] to modify the wording accordingly.

Member States have also reported some difficulties in the use of the standard document. Details about this inconsistency and the difficulties encountered are provided in the Commission Staff Working Document SWD(2013)150. These difficulties will be followed up by the advisory committee.

2.3. Competent authorities

Competent authorities are any authority which, under the law or regulations of the countries of origin, transit or destination, are empowered to implement the system of supervision and control of shipments of radioactive waste or spent fuel. In order to facilitate communication with the Commission all Member States must provide the Commission with the necessary information and contact details of their competent authority or authorities.

The list of competent authorities in the Member States can also be accessed via the Europa web site of the European Commission under the following link:

http://ec.europa.eu/energy/nuclear/transport/shipment_directive_en.htm.

2.4. Transmission

Under Article 19 of the Shipments Directive the Commission shall establish recommendations for a secure and effective system of transmission of the documents and information relating to the provisions of the Directive. The Commission shall also establish and maintain an electronic communication platform for providing the contact details of the

[9] OJ L 107, 17.4.2008, p. 32

[10] OJEU L 343, 23 December 2011, pp. 149.

competent authorities in the Member States, the languages acceptable to the competent authorities as well as all general conditions and additional requirements, if any, required for the authorisation of shipments.

The Commission Recommendation for a secure and effective system of transmission of documents and information was published in the *Official Journal of the European Union* in July 2009[11].

Regarding the electronic platform, the Commission established a website (see the above cited link) containing all relevant information related to the Shipments Directive. The data provided is, where appropriate, updated following information transmitted to the Commission by each Member State as foreseen under Article 18(2) of the Directive.

2.5. Advisory committee

In performing the tasks laid down by the Directive, the Commission is assisted by a Committee of an advisory nature composed of representatives of the Member States. The first meeting was convened in May 2007 with the adoption of the advisory committee terms of reference and work programme for the following years. The Committee held nine meetings organised and chaired by a representative of the Commission.

The advisory committee delivered its opinion:

– on the establishment and use of the standard document;

– on the Commission Recommendation establishing criteria for the export of radioactive waste and spent fuel to third countries;

– on the Commission Recommendation for a secure and effective system of transmission of documents.

The opinions of the Committee have been recorded in the minutes.

The experience to date shows that the advisory committee is a good and useful tool to allow representatives of Member States to share their experience with the Commission and between themselves.

2.6. Regular reports

Member States have the obligation to report to the Commission for the first time by the end of 2011 and then every three years on the implementation of the Shipments Directive. On the basis of the Member States' reports, the Commission has established this first summary report for the European Parliament, the Council and the European Economic and Social Committee in order to provide a useful overview of authorisations given Community-wide and to inform about practical difficulties encountered by the Member States and the solutions applied.

According to Article 20 and the procedures laid down in Article 21 of the Directive, the advisory committee was consulted on the draft report and the associated working document. No major comments were received from the members of the advisory committee. Comments mainly concerned updates of contact details.

The reporting should pay particular attention to cases of reshipment related to non-authorised shipments and undeclared radioactive waste (Art. 4 of the Directive). In the context of this first report, the Commission has not been informed about any shipments that would fall under the provisions of Article 4.

[11] OJ L 177, 8.7.2009, p. 5

3. REPORTING FROM MEMBER STATES

In order to streamline the reporting process the Commission provided all Member States with a reporting template in two parts: the first part on information on the implementation of the Directive, the second part on information on shipments. All Member States have reported to the Commission. The information provided was analysed by the Commission and, where necessary, some issues that required further clarification were addressed bilaterally with the Member States concerned. The main elements from the Member States reports are summarised in this report. Further details can be found in the accompanying Commission Staff Working Document.

In general, no major problems in the implementation of the Directive were reported by the Member States. Nevertheless, some Member States reported particular concerns about the following two issues:

– The fact that there is no harmonisation of clearance levels for radioactive waste in the EU can lead to the possibility that materials containing radioactive substances are released in one Member State but could still be considered as radioactive waste in another Member State.

– Transboundary shipments of some wastes containing naturally occurring radioactive materials (NORM[12] waste) and which are not arising from authorized practices as currently defined under the Basic Safety Standards. These kinds of wastes are excluded from the scope of this Directive but also from the Directive[13] on the management of waste from extractive industries.

Both issues will be further investigated and addressed within the advisory committee.

3.1. Shipments

The Shipments Directive requests that shipments of radioactive waste and spent nuclear fuel between Member States take place only with the prior informed consent of the competent authorities of all the Member States involved.

From the 27 Member States, 14 Member States authorised shipments within the scope of the Directive. The number of authorisations is relatively small. In the period covered by the present report 2008 -2011, Member States reported the delivery of 161 authorisations[14] within the scope of the Directive. 74% of the authorisations are related to shipment of wastes, the remaining 26 % are shipments of spent nuclear fuels.

Most of the shipments are shipments between Member States. Detailed information is provided in the Commission Staff Working Document.

3.2. Exports out of the Community

Without prejudice to the right of each Member State to define its own spent fuel cycle policy and as already mentioned, the Shipments Directive shall not affect the right of a Member State to export spent fuel for reprocessing, taking into account the principles of the nuclear common market, in particular the free movement of goods within the EU. However article 16(1) of the Directive clearly indicates under which conditions export shipments are prohibited. Particularly important is that the competent authority of Member States shall not authorise shipments to a third country which does not have the administrative and technical

[12] Naturally Occurring Radioactive Materials (NORM)

[13] Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006.

[14] It has to be noted that some authorisations are given for several shipments to be carried out over a time period that may exceed the current reporting period.

capacity and regulatory structure to manage the radioactive waste or spent fuels safely, as stated also in the Joint Convention.

Hereto, and with the involvement of the advisory committee in accordance with the procedure laid down in Article 21, the Commission has established criteria in line with the Article 16.2, taking due account of, inter alia, relevant safety standards of the International Atomic Energy Agency (IAEA), facilitating Member States to evaluate whether requirements for exports are met. Those criteria have been published as a Commission Recommendation in the *Official Journal of the European Union* in December 2008[15].

The number of authorisations as reported by the Member States for export to third countries remains rather low (17 % out of the total number of reported authorisations). 9 Member States reported a total of 28 authorisations for export outside the EU to Russia, China, Switzerland, Japan and USA. 16 of those authorisations concerned the shipment of spent fuel for reprocessing (6 authorisations for spent fuel from nuclear power plants) or reprocessing and storage (10 authorisations for spent fuel from research reactors). The remaining 12 authorisations were for radioactive waste being returned to the country of origin (i.e. radioactive waste arising from the treatment of contaminated material in one of the Member States).

Member States reported that shipments and exports are supervised and controlled in accordance with the procedures and provisions laid down in the Shipments Directive. However, with the information provided, the Commission is not in a position to verify whether all the export criteria according to the Commission Recommendation are fully complied with; in particular whether the spent fuel facilities in the third countries are effectively submitted to an IAEA safeguards agreement, in connection with the signature and ratification of the Non-Proliferation Treaty, and related additional protocols or whether the requirements for a high level of safety are met as required under the Waste Directive.

In the reporting from the Member States, the Commission also notes an overall consistency and complementarity with the National Reports under the Joint Convention on the Safety of Spent fuel Management and on the Safety of Radioactive Waste Management as those reports describe mainly the legal framework and responsibilities.

4. CONCLUSIONS

The Shipments Directive has been successfully transposed in all EU Member States. The general provisions under the Directive have been implemented through the adoption and publication of the relevant Commission Decision and Recommendations and the creation of the Advisory Committee.

After having assessed the information provided by the Member States in their first reporting exercise, the Commission notes that the Directive is now being fully implemented so as to guarantee an adequate protection of the population. It provides a well-structured and operational framework for the supervision and control of shipments in all Member States, ensuring that transboundary shipments of radioactive waste and spent nuclear fuel take place only with the prior informed consent of the competent authorities of all the Member States involved.

The implementation of the Shipments Directive has not given rise to any major problems. The issue of NORM waste and clearance levels in the context of the shipment of radioactive waste

[15] OJ L 338, 17.12.2008, p. 69

has been identified and will be further followed-up by the advisory committee established under this Directive.

As regards the shipments of radioactive wastes and spent fuel, the Commission notes that the existing national provisions, notably those implementing the Directive laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation allow the national competent authorities to monitor the movements of these shipments on their territory.

This report provides a first summary overview of authorisations given in the Community under the Shipment Directive. The number of authorisations of shipments is relatively small and there is a clear picture on exports outside the EU. Although the Commissions export criteria are only published as a Recommendation with no legally binding character, the alignment of Member State practices with all the criteria will remain an issue that will also be further addressed in close cooperation with the advisory committee.

In implementing the Waste Directive, Member States are requested to take concrete decisions for the safe management of their radioactive waste and spent fuel. This will also certainly have an impact on the shipments within, into and out of the EU. Future reporting will then provide information on the evolution of shipments of radioactive waste and spent fuel.

Finally, no accidents leading to a release of radioactive substances to the environment and involving national or transboundary movements of radioactive waste or spent fuel were reported for the three years covered by this report.