



## **Manual of European Environmental Policy**

The following pages are a section from the Manual of European Environmental Policy written by the Institute for European Environmental Policy.

The Manual was published by Earthscan/Routledge from 2010 to 2012. It was designed as an on-line interactive reference work and annual printed versions were also produced.

This section is the text of the Manual as published in 2012. It is therefore important to note the following:

- The contents have not been updated since 2012 and no guarantee is given of the accuracy of the contents given potential subsequent developments.
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# Shipment of radioactive substances and waste

<b>Formal references</b>	
<a href="#">2006/117/EURATOM</a> (OJ L 337 20.11.2006)	Directive on the supervision and control of <a href="#">shipments of radioactive waste</a> and spent fuel
Proposed 12.11.04 – <a href="#">COM(2004)716</a>	
Regulation (EURATOM) No <a href="#">1493/93</a> (OJ L148 19.06.1993)	Regulation on shipments of radioactive substances between Member States
Proposed 04.12.1992 – <a href="#">COM(92)520</a> and 26.05.1993 – <a href="#">COM(93)235</a>	
<a href="#">2011/70/EURATOM</a> (OJ L 199/48 19.7.2011)	Directive establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste
Proposed- 3.11..2010 - <a href="#">COM(2010)618</a>	
<b>Legal base</b>	Article 30 and 32 EURATOM
<b>Binding dates</b>	
<a href="#">2006/117</a>	
Enters into force	25 December 2006
Deadline for transposition	25 December 2008
<a href="#">1493/93</a>	
Enters into force	9 July 1993 Note: Directive 2006/117/EURATOM repealed Directive <a href="#">92/3/EURATOM</a> (OJ L35 12.02.1992) on the supervision and control of shipments of radioactive waste between Member States and into and out of the Community.

## Purpose of the legislation

Central to this legislation is the introduction of controls enhancing the safety of cross-border shipments of radioactive substances and/or radioactive waste. A purpose is to protect the health of the public and workers in compliance with Article 2(b) of the EURATOM Treaty despite the removal of border checks resulting from completion of the internal market.

## Summary of the legislation

### Regulation (EURATOM) No 1493/93

Regulation (EURATOM) No 1493/93 applies to shipments between Member States of sealed sources of radioactive substances and other unsealed sources used for medical, veterinary, industrial, commercial, research or agricultural applications. Nuclear fuel is excluded from

the provisions. Radioactive waste was covered but ceased to be covered when Directive 92/3/EURATOM came into effect.

Basic information on radioactive substances being transported must be notified by exporters to the appropriate competent authority of the Member State in receipt of shipments. Details of all the relevant competent authorities are to be listed in the *Official Journal* (see OJ C335, 10.12.1993). Communication [2002/C40/04](#) of 14 February 2002 presented a list of competent authorities. Stricter additional requirements apply to exports of sealed sources where holders of substances must await a prior declaration from a consignee, stamped by the competent authority of the latter, before a shipment may take place. A consignee is under a reciprocal obligation to ensure fulfilment of the provisions. In effect, the procedure should ensure national requirements relating to notification and financial arrangements found in Article 3 of Directive [80/836/EURATOM](#) are satisfied.

## **Directive 2006/117/EURATOM**

This Directive was brought into force to revoke and replace Directive 92/3/EURATOM. It establishes legislation on the supervision and control of radioactive waste and spent fuel, standardizing the system of notification and the control document. It covers shipments of radioactive waste or spent fuel which have a point of departure, transit or destination in an European Union (EU) Member State if the quantities or concentration are over certain limits fixed by Directive 96/29/EURATOM, Article 3(2)(a) and (b).

Under the Directive, in order to send a shipment of radioactive waste or spent fuel the holder must submit an application to the competent authorities in the country of origin. If waste is to be imported into the EU, the consignee must submit this application to the competent authorities of the country of destination. When shipments are made from a Member State to a third country, the competent authorities in the Member State of origin must contact the authorities in the country of destination. The competent authorities of the country of destination and of any country of transit must have notified the competent authorities of the country of origin of their approval for shipment to be made. A maximum period of two months after receipt of the application is given for notification of approval or refusal. A 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. The Directive does not apply to the following cases:

- shipments of sources being returned to a supplier, manufacturer or authorized installation;
- shipments of radioactive substances recovered through reprocessing and destined for a different use;
- shipments of natural radioactive substances which do not result from treatment.

Export of radioactive waste to African, Caribbean or Pacific (ACP) countries is prohibited, in line with the Cotonou Agreement, as is export to a destination south of latitude 60 south or to a third country which does not have the resources to manage the radioactive waste safely. If the conditions applying to the shipment are not complied with or the shipment cannot be completed, a competent authority may decide that the radioactive waste must be returned to the holder if no safe alternative can be found. A standard document is to be used for all shipments falling within the scope of the Directive<sup>1</sup>.

The Directive requires the Commission to regularly present summary reports on the implementation of this Directive to the Council, the European Parliament and the European Economic and Social Committee, based on the Member States' reports.

## **Directive 2011/70/EURATOM**

This Directive sets further requirements on waste exports. When radioactive waste or spent fuel is shipped for processing or reprocessing to a Member State or a third country, the ultimate responsibility for the safe and responsible disposal of those materials remains with the Member State or third country from which the radioactive material was shipped.

Radioactive waste is to be disposed of in the Member State in which it was generated, unless at the time of shipment an agreement to use a disposal facility in another country, taking into account the criteria in Article 16(2) of Directive 2006/117/EURATOM, has entered into force between the exporting Member State and another Member State or a third country. Prior to a shipment to a third country, the exporting Member State shall inform the Commission of the content of any such agreement and take reasonable measures to be assured that:

- the country of destination has concluded an agreement with the Community covering spent fuel and radioactive waste management or is a party to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management ('the Joint Convention');
- the country of destination has radioactive waste management and disposal programmes with objectives representing a high level of safety equivalent to those established by this Directive; and
- the disposal facility in the country of destination is authorised for the radioactive waste to be shipped, is operating prior to the shipment, and is managed in accordance with the requirements set down in the radioactive waste management and disposal programme of that country of destination.

Aspects of Directive 2011/70/EURATOM linked to safety are discussed in more detail in the section on [Safety Standards for Radiation](#).

## **Development of the legislation**

### **Directive 92/3/EURATOM**

The Basic Safety Standards Directive [80/836/EURATOM](#) included requirements for Member States to introduce a system of compulsory reporting and prior authorization for transport operations if they involved ionizing radiation.

In 1985 prior authorization became compulsory for transfrontier movements of [hazardous waste](#) but radioactive waste was not subject to these requirements. Serious concern over the lack of controls over radioactive waste movements arose in 1988 as a result of the so-called 'Mol/Transnuklear' affair involving alleged movements between Belgium and Germany. The European Parliament established a Committee of Inquiry on the Handling and Transport of Nuclear Materials and then adopted a Resolution (OJ C235, 12.09.1988) calling for 'comprehensive Community rules on the transfrontier transport of nuclear waste, where such movements are unavoidable'. In the same year, fears of unauthorized dumping of wastes in

developing countries led to the International Atomic Energy Agency (IAEA) code of good practice on the international transboundary movement of radioactive waste, a code which has since been accepted by all Member States.

In response to these developments the Commission proposed a system, modelled on the transfrontier shipment of hazardous waste [legislation](#). The proposal also covered radioactive waste transfers within Member States. The UK estimated that ‘movements (coming under the proposal) may number about 70,000/year within the UK’<sup>2</sup> and with the help of other Member States, succeeded in removing the requirement to report non-transfrontier movements of nuclear waste, significantly reducing both administrative and financial burdens.

Until 1 January 1994 when Directive 92/3/EURATOM entered into force, all requirements of Regulation (EURATOM) No 1493/93 also covered radioactive waste shipments. The Directive supplemented Directive [80/836/EURATOM](#) by effectively adding the shipment of radioactive waste to the list of activities requiring prior authorization by virtue of Article 5 Directive 80/836/EURATOM. Quantities of waste below thresholds set out in Directive 80/836/EURATOM were excluded as was spent/irradiated nuclear fuel.

## **Regulation 1493/93/EURATOM**

Radioactive materials travel by various means of transport and include irradiated and unirradiated nuclear fuel, radioisotopes for medical use, and industrial and medical radiography sources. In excess of one and a half million packages are estimated to be transported each year in the Member States (COM(96)11 03.04.1996). International Regulations for the Safe Transport of Radioactive Materials were first prepared by the IAEA in 1961 and today form the basis of regulations throughout the EU, at both Community and national level. These have been revised regularly to reflect changes in transport patterns, radiological protection and technology.

Frontier controls had played a central role in informing competent authorities about transfrontier shipments of radioactive substances and compliance with national legislation. With the removal of these frontier controls, new means were required for securing at least the same information on the movement of these substances.

At the time of proposing the Regulation, the transboundary shipment of radioactive substances already formed part of a proposal to amend the Basic Safety Standards Directive 80/836/EURATOM. The urgency of the situation nevertheless called for an interim measure which would be directly applicable to Member States. The proposed Regulation also offered an opportunity of some level of temporary control over radioactive waste until Directive 92/3/EURATOM, which had already been adopted, was introduced into national legislation. Despite initial intentions, the Regulation was not incorporated into the revised Basic Safety Standards Directive [96/29/EURATOM](#) but remains as a separate piece of legislation.

## **Directive 2006/117/EURATOM**

In November 2004 the Commission adopted a proposal on the supervision and control of shipments of radioactive waste and spent fuel (COM(2004)716). The Directive was proposed with a view to improving the consistency with the latest Euratom Directives and international Conventions, clarifying the procedure in practice and extending the control procedures to shipments of spent fuel, whether it is intended for disposal or for reprocessing.

## **Directive 2011/70/EURATOM**

On 3 November 2010, the European Commission presented the Proposal for a Directive on the management of spent fuel and radioactive waste ([COM\(2010\)618](#)). In the Proposal the Commission had advocated a complete export ban and this was supported by the European Parliament in its plenary. However, as the legal basis is the Euratom Treaty, the European Parliament is only consulted. Consequently the final decision was taken only by the Council, which decided against a complete export ban.

## **Implementation of the legislation**

In 2001 the Commission published its third report on the application of Directive 92/3/EURATOM, ([COM\(2001\)270](#)). The number of transfrontier shipments of radioactive waste was found to be relatively small. Problems concerned national general bans on import of radioactive waste from Member States, and disagreements over the justification of refusals of individual shipments.

In September 2008 the Commission published its sixth situation report on radioactive waste and spent fuel management in the EU ([COM\(2008\)542](#)). While not specifically concerned with the legislation on radioactive substances and waste, this report gives an overview of the current status of the management of radioactive waste and spent fuel in the EU. It found that of seven Member States using nuclear energy, five used the reprocessing option for disposing of their waste and two use direct disposal of spent fuel. Finland, Sweden and France were singled out as having made progress on the disposal of waste in the most dangerous category. The Commission stated that regional and international cooperation could accelerate decision-making on definitive disposal solutions. However, it acknowledges problems with persuading a country to host a regional centre. The Commission also stated that proposals from non-EU states for disposal of radioactive waste and spent fuel should not be encouraged for technical, economical and also safety and security reasons, especially when the potential receiving state has not put in place the same technical, political and societal requirements and conditions as given at EU level.

## **Enforcement and court cases**

In 2009 formal notices on non-communication of final transposition were sent to 19 Member States. Responses were received from all Member States apart from Greece and on 5 May 2010 Greece was referred to the ECJ for its failure to transpose the Directive<sup>3,4</sup>. In 2010 all infringement cases were closed as all Member States had completed the transposition ([SEC\(2011\)1093](#)).

## **Related legislation**

The following legislation is relevant to this section:

- Directive [96/29/EURATOM](#) establishes the limits in quantity or concentration of radioactive waste at which Directive 2006/117 applies.
- Waste Shipment Regulation (EC) No [1013/2006](#).

## References

1 CEC (2008) Commission webpage

[http://ec.europa.eu/energy/nuclear/doc/2008\\_03\\_05\\_commission\\_decision.zip](http://ec.europa.eu/energy/nuclear/doc/2008_03_05_commission_decision.zip), Accessed 16.12.09

2 Department of the Environment (1994) UK Explanatory memorandum on EC legislation 8236/90 – COM(90)328 final, 24 September 1994.

3 European Commission (2010) Accompanying Document to the Report from the Commission, 27th Annual Report on Monitoring the Application of EU Law (2009), [COM\(2010\)538](#).

4 EC Press Release (2010) *Energy: Commission Refers Greece to Court for Failure to Implement a Euratom Directive*. European Commission webpage.

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/533&format=HTML&aged=1&language=EN&guiLanguage=en>. Accessed 1.4.2011