

**Project Fiche – 2009 IPA Horizontal Programme  
on Nuclear Safety and Radiation Protection**

**1. Basic information**

- 1.1 CRIS Number:** 2009/021-640  
**1.2 Title:** Management of sealed radioactive sources, including radioactive lightning rods  
**1.3 ELARG Statistical code:** 03.64 - Nuclear safety  
**1.4 Location:** The former Yugoslav Republic of Macedonia, Montenegro, as well as Kosovo under UNSCR 1244/99

**Implementing arrangements:**

**1.5 Contracting Authority:**

The European Community represented by the Commission of the European Communities for and on behalf of the former Yugoslav Republic of Macedonia, Montenegro and Kosovo<sup>1</sup>.

**1.6 Implementing Agency:**

Not applicable.

**1.7 Beneficiaries:**

The former Yugoslav Republic of Macedonia, Montenegro and Kosovo; and in particular:

Mr. Rumen Stamenov  
Director

**Radiation Safety Directorate**

Bld Partizanski odredi 143

P.O. Box 22

1020 Skopje

The former Yugoslav Republic of Macedonia

Phone: + 389 2 3099 030

Fax: + 389 2 3099 032

E-mail: [stamenovrumen@yahoo.com](mailto:stamenovrumen@yahoo.com)

Ms. Tamara Djurovic

Senior adviser

**Ministry of Tourism and Environment**

Podgorica

Montenegro

Tel: +382 20 482 336

fax: +382 20 234 237

mob. +382 69 565 875

E-mail: [tamara.djurovic@gov.me](mailto:tamara.djurovic@gov.me)

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<sup>1</sup> under UNSCR 1244/99

**Ms. Daliborka Pejovic**  
**Director**  
**Environmental Protection Agency**  
Podgorica  
Montenegro  
Tel: +382-20-618 256  
fax: +382-20-618 246,  
E-mail: [epamontenegro@gmail.com](mailto:epamontenegro@gmail.com)

The National Agency for Radiation Safety (being established)  
Ministry of Environment and Spatial Planning  
Street Nazim Gafurri, 103  
10000-Prishtina  
Kosovo  
Phone: +381 38 200 32 004  
Fax:  
E-mail: [belkize.ajdini@ks-go.net](mailto:belkize.ajdini@ks-go.net)

**Financing:**

**1.8 Overall cost (VAT excluded)<sup>2</sup>:** EUR 1 350 000

**1.9 EC contribution:** EUR 1 350 000

**1.10 Final date for contracting:** 2 years following the date of conclusion of the financing agreements

**1.11 Final date for execution of contracts:** 2 years following the end date for contracting

**1.12 Final date for disbursements:** 1 year following the end date for execution of contracts

**2. Overall Objective**

**2.1 Overall Objective:**

To decrease the radiological risks for both members of the public and the workers that are associated to radioactive waste in the former Yugoslav Republic of Macedonia, Montenegro and Kosovo.

**2.2 Project purpose:**

To manage sealed radioactive sources, including radioactive lightning rods according to the Community *acquis* and best EU practices.

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<sup>2</sup> The total cost of the project should be net of VAT and/or other taxes. Should this not be the case, the amount of VAT and the reasons why it should be considered eligible should be clearly indicated

### 2.3 Link with AP/NPAA/EP/SAA

#### For the former Yugoslav Republic of Macedonia

The 2008/212/EC: Council Decision of 18 February 2008 on the principles, priorities and conditions contained in the Accession Partnership with the former Yugoslav Republic of Macedonia and repealing Decision 2006/57/EC specifies two important requirements: the construction of an appropriate storage facility for radioactive materials and provisions to ensure the proper and independent functioning of the Radiation Safety Directorate (the nuclear regulatory body).

#### For Montenegro

The 2007/49/EC: Council Decision of 22 January 2007 on the principles, priorities and conditions contained in the European Partnership with Montenegro mentions that a regulatory body should be put in place so that appropriate legislation in the field of nuclear safety and radiation protection can be adopted. It also indicates that Montenegro should take appropriate measures to become party to international nuclear safety conventions to which EURATOM is already a Contracting Party.

#### For Kosovo

The 2008/213/EC: Council Decision of 18 February 2008 on the principles, priorities and conditions contained in the European Partnership with Serbia including Kosovo as defined by United Nations Security Council Resolution 1244 of 10 June 1999 and repealing Decision 2006/56/EC, highlights the need to accede to the relevant international conventions relating to nuclear safety and to set up the appropriate regulatory body.

In addition the Kosovo 2008 Progress report states that there was so far no progress as regards nuclear safety/radiation protection. It considers that in the area of nuclear safety/radiation protection, basic rules need to be implemented and an appropriate and operational regulatory body needs to be set up. Important radiological issues in Kosovo include the management of sealed radioactive sources, environmental monitoring and radiation protection in the context of medical and industrial applications. Attention needs to be paid to preventing and combating illicit trafficking of nuclear and other radioactive materials within Kosovo.

### 2.4 Link with MIPD

The IPA Multi-beneficiary Multi-annual indicative Planning Document (MIPD) 2009-2011<sup>3</sup>, *section 2.3.3.11 - Nuclear Safety and Radiation Protection*, mentions that "all IPA eligible beneficiaries are facing radiological issues that are connected with the use of radionuclides for industrial and medical applications. The management of sealed radioactive sources, for example, dismantling of radioactive lightning rods and operation of centralised storage facilities remains a key issue. Moreover management of radioactive waste in hospitals may require investments and training of the personnel. In nearly all IPA eligible Beneficiaries, the prevention and combat of illicit trafficking of nuclear materials and radioactive sources need specific regulations, supply of equipment, training of the relevant state organisations and specific actions to make the support sustainable".

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<sup>3</sup> Include reference

## 2.5 Link with National/Sectoral Investment Plan

Not applicable.

## 3. Description of project

### 3.1 Background and justification:

From the sixties to the eighties, several Yugoslav organisations (the Vinča Nuclear Institute, Slavija Elektro and Elind) produced thousands of radioactive lightning rods. These were installed all over the country on the roofs of public buildings, schools, kindergartens and factories. Although many other countries decided during the same period to use also radionuclides to improve the efficiency of lightning rods, this was generally carried out with low energy gamma emitters. On the opposite, under the assumption that the higher the energy of gamma emitters the better is the functioning of the lightning rods (that proved to be afterwards a wrong assumption) the Yugoslav Republic used rather highly powerful radionuclides, i.e. Eu-152 and Co-60. Typical initial radioactivity of the lightning rods ranges from 10 to 40 GBq. These sealed radioactive sources are classified under category 4 according to the International Atomic Energy Agency (IAEA).

Due to the fact that there is no more maintenance activities on the radioactive lightning rods, it regularly happens that some of them fall down. Several cases of radioactive lightning rods that were found in kindergartens raised a lot of concern in the local population. In addition, sealed radioactive sources that came from radioactive lightning rods are from time to time found in scrap metal. In this context, trucks transporting scrap metal may be blocked at the borders as a result of the presence of the radioactive materials. Several cases occurred recently at the border between Kosovo and the former Yugoslav Republic of Macedonia.

Although there is no comprehensive inventory available, estimates would show that 261 and 100 radioactive lightning rods are still installed respectively in the former Yugoslav Republic of Macedonia and in Montenegro. In Kosovo, since there is no archive left, the total number of radioactive lightning rods still in place is unknown.

In some countries like in the former Yugoslav Republic of Macedonia, actions have already been undertaken to remove radioactive lightning rods from the roofs. Using makeshift devices and tools, about 76 radioactive lightning rods would have thus been dismantled. The resulting sealed radioactive sources containing either Eu-152 or Co-60 were stored in several locations in Skopje: the Centre of Radioisotopes, the RZ Tehnicka kontrola company and the Welding Institute JUG. None of these storage facilities has been licensed. Transportation of the sealed radioactive sources to the new national storage facility that is being licensed is therefore required by the nuclear regulatory body, the Radiation Safety Directorate.

In addition to radioactive lightning rods, the existence of other types of sealed radioactive sources in the former Yugoslav Republic of Macedonia, Montenegro and in Kosovo that arise from medical and industrial applications of radionuclides and which are not necessarily managed according to best EU practices may pose some radiological risks to both the members of the public and workers.

In order to improve current management practices of sealed radioactive sources, first appropriate regulations should be laid down by the national regulatory bodies, and second comprehensive databases should be set up. Provisions should be then taken to recover and transport these sealed radioactive sources to a licensed processing/storage facility. Therefore the national regulatory bodies of the former Yugoslav Republic of Macedonia, Montenegro and Kosovo should play an important role during the implementation of the project. Whereas, regulatory bodies in the former Yugoslav Republic of Macedonia and Montenegro are now established and are becoming progressively fully operational, this is not yet the case in Kosovo. A nuclear law establishing a regulatory body still needs to be promulgated in Kosovo. In principle, this law should be approved by the end of 2009.

The former Yugoslav Republic of Macedonia, Montenegro and Kosovo need a significant support in order to resolve all the radiological issues connected with the management of sealed radioactive sources and notably those arising from the dismantling of radioactive lightning rods. Since a significant part of these problems is common to the three Beneficiaries, it was deemed worthwhile to address them through a regional IPA project.

Finally, it should be underlined that this project is covering three of the Western Balkans (the former Yugoslav Republic of Macedonia, Montenegro and Kosovo) because only these three Beneficiaries asked for such a support. In addition, the practical work consisting of removing, dismantling and processing radioactive lightning rods would be limited to the former Yugoslav Republic of Macedonia and Montenegro simply because these Beneficiaries have storage facilities for that particular radioactive waste type that should be fully operational in 2010. This is not yet the case for most of the other Western Balkans.

### **3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact**

The project will impact on the reduction of the radiological risks that are deriving from current unsafe and unsecured management of sealed radioactive sources in the former Yugoslav Republic of Macedonia, Montenegro and Kosovo.

It has a catalytic effect in the sense that a better management of sealed radioactive sources will decrease the anxiety of the members of the public towards possible irradiation from old radioactive lightning rods and orphan sources. Consequently the perception of the benefits of applying radionuclides in a wide range of activities should be improved.

In the former Yugoslav Republic of Macedonia and in Montenegro, the project would require no sustainability since it will solve the radiological issues that are related to the spreading of radioactive lightning rods throughout the countries. Concerning Kosovo, the project should contribute to lay the foundations for a management system for radioactive waste that is in line with EU practices. Its sustainability should be guaranteed by the Kosovan government through an appropriate funding given to the regulatory body of Kosovo as well as to appropriate organisations in charge of remediating the radioactive legacy of the past.

It has an important cross-border impact since a better management of sealed radioactive sources should decrease the risks of illicit trafficking of sealed radioactive sources in the neighbouring countries.

### **3.3 Results and measurable indicators:**

1. Critical analysis of the current management practices for radioactive waste in the three Beneficiaries;
2. Comprehensive inventories of sealed radioactive sources, including radioactive lightning rods in each of the three Beneficiaries, established;
3. Appropriate regulations on the processing, transport and storage of sealed radioactive sources, including radioactive lightning rods, drafted (for the three Beneficiaries);
4. All radioactive lightning rods removed, dismantled, and their radioactive content properly managed, including their storage in a licensed facility (for the former Yugoslav Republic of Macedonia and Montenegro);
5. All radioactive sources currently stored at users premises transported to a central and licensed processing and storage facility (for the former Yugoslav Republic of Macedonia and Montenegro);
6. Site for the future construction of a processing and storage facility for radioactive waste, including sealed radioactive sources in Kosovo, selected;
7. The future processing and storage facility for sealed radioactive sources in Kosovo designed;
8. Terms of Reference and technical specifications for the construction and fitting out of the processing and storage facility for radioactive waste in Kosovo determined;
9. Personnel of the nuclear regulatory bodies in the former Yugoslav Republic of Macedonia, Montenegro and Kosovo trained on radioactive waste management issues.

The main indicator is that at least 361 radioactive lightning rods are removed, dismantled and processed in Montenegro and in the former Yugoslav Republic of Macedonia. In Kosovo the indicator is the production of a reliable database on all types of sealed radioactive sources - including radioactive lightning rods - that are present on the Kosovan territory.

Other measurable indicators will consist of new pieces of legislation and regulations drafted, the tender dossiers for the future construction of a processing and storage facility for radioactive waste in Kosovo prepared, the establishment of a training programme and the attendance certificates.

The reports to be provided by the contractor(s), the visits of storage facilities in the former Yugoslav Republic of Macedonia and in Montenegro where sealed radioactive sources will end up, will serve among others, as sources of verification.

### **3.4 Activities:**

#### Activity 1: Service contract, No 1 - Regulatory assistance

The service contract should consist of the following tasks:

- 1.1. On the basis of the reviewing of the existing legislation and regulations on radioactive waste management against the Community acquis and best EU practices, the contractor will proceed with the identification of possible drawbacks and inconsistencies both in terms of regulations and management practices in each of the three Beneficiaries;
- 1.2. Assistance will be provided to the nuclear regulatory bodies of the former Yugoslav Republic of Macedonia, Montenegro and Kosovo to draft appropriate pieces of legislation and regulations that would improve current management practices for radioactive waste;
- 1.3. Assistance to the nuclear regulatory bodies of the former Yugoslav Republic of Macedonia, Montenegro and Kosovo to set-up databases for all types of radioactive waste that are existing in the Beneficiaries, including sealed radioactive sources and radioactive lightning rods;
- 1.4. Assistance will be provided to the nuclear regulatory bodies of the former Yugoslav Republic of Macedonia and Montenegro to review the safety reports that should be prepared by a third party (see works contract No 2) concerning the removal, dismantling, transport, treatment, conditioning, packaging and storage operations of sealed radioactive sources including radioactive lightning rods;
- 1.5. Assistance will be provided to the nuclear regulatory body of Kosovo to review the safety reports that should be prepared by a third party (see works contract No 2) concerning the siting and design of the treatment/conditioning/packaging and storage facility for radioactive waste;
- 1.6. Training courses will be organised by the contractor in order to enhance the technical capacity of the personnel of the national nuclear regulatory bodies as well as the staff of their Technical Support Organisations of the three Beneficiaries in the field of radioactive waste management with a special emphasis on management of sealed radioactive sources.
- 1.7. Supervision of the works component of the project is part of the service contract.

#### Activity 2: Works contract, No 2

The works contract will focus on the following topics:

- 2.1. Establishment of a detailed management plan for the removal, transport, processing, and storage of sealed radioactive sources, including radioactive lightning rods in the former Yugoslav Republic of Macedonia and in Montenegro. This plan should be accompanied by all relevant safety analysis reports to be submitted to the national regulatory body of each of these Beneficiaries;

- 2.2. Once the detailed management plan has been approved by the relevant national safety authorities, the practical removal, transport, processing and storage of sealed radioactive sources, including radioactive lightning rods will be performed. Conditioned sealed radioactive sources will be stored in the national storage facilities for radioactive waste that have been licensed in the former Yugoslav Republic of Macedonia and in Montenegro. All identified radioactive lightning rods in the former Yugoslav Republic of Macedonia and Montenegro will be removed and managed according to the detailed management plan. This activity may involve the purchase of some specific equipment.
- 2.3. Sealed radioactive sources that are currently stored at users premises and in particular those sources that are stored in the Centre of Radioisotopes in Skopje will be transported and conditioned in the national processing and storage facility for radioactive waste.
- 2.4. The future processing and storage facility for radioactive waste in Kosovo will be designed and the technical specifications of all types of equipment will be determined. The level of detail of the technical specifications should enable later on the preparation of tender dossiers.

#### Activity 3: Supply contract No 3

In order to make sure that all the necessary equipment will be available to perform the removal, transport and dismantling of radioactive lightning rods in the former Yugoslav Republic of Macedonia and in Montenegro, a provision has been allocated for the purchase and/or renting of lacking pieces of equipment.

### **3.5 Conditionality and sequencing:**

The implementation of this project requires functioning regulatory bodies in Montenegro and Kosovo since a significant part of the project will consist of regulatory assistance.

The service and works contracts could start in parallel. However, the practical implementation of the removal, transport, dismantling, conditioning and storage operations of sealed radioactive sources, including radioactive lightning rods, will have to wait the authorisation of the relevant nuclear safety authorities.

### **3.6 Linked activities:**

There is a 2007 IPA-funded project on the "Assessment of needs and proposed actions to strengthen the safety and security of sealed radioactive sources in Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Montenegro, Serbia and Kosovo" that is being implemented by the International Atomic Energy Agency and that should be completed during the first Quarter of 2010. The conclusions of this assessment will be taken into account to refine or precise the work programme associated to this project.



### 3.7 Lessons learned

Since the IPA horizontal programme on nuclear safety and radiation protection started only recently, there is no feed-back that could be used to implement this project. However, based on the experience gained in the Central and Eastern European Countries during the implementation of the former Phare nuclear safety programme, it can be said that the approval of a detailed management plan for the removal, transport, processing and storage of sealed radioactive sources by the nuclear safety authorities constitutes a crucial step of the project and may entail significant delays during project implementation. However the regulatory bodies of the former Yugoslav Republic of Macedonia (the Radiation Safety Directorate operational since 2007) and Montenegro (the EPA being established in 2009) are well aware of that situation and will do their best to overcome possible delays during project implementation, since they are the main beneficiaries of the project.

### 4. Indicative Budget (amounts in EUR)

			SOURCES OF FUNDING									
			TOTAL EXP.RE	IPA COMMUNITY CONTRIBUTION		NATIONAL CONTRIBUTION					PRIVATE CONTRIBUTION	
ACTIVITIES	IB (1)	INV (1)	EUR (a)=(b)+(c) (d)	EUR (b)	%(2)	Total EUR (c)=(x) +(y)+(z)	% (2)	Central EUR (x)	Regional/ Local EUR (y)	IFIs EUR (z)	EUR (d)	% (2)
Activity 1	x		350 000	350 000	100							
Contract 1 - Service	-	-	350 000	350 000	100							
Activity 2		x	900 000	900 000	100							
Contract 2 - Works	-	-	900 000	900 000	100							
Activity 3		x	100 000									
Supply			100 000		100							
TOTAL IB			350 000	350 000	100							
TOTAL INV			1000 000	1000 000	100							
<b>TOTAL PROJECT</b>			<b>1 350 000</b>	<b>1 350 000</b>	<b>100</b>							

Amounts net of VAT

- (1) In the Activity row use "X" to identify whether IB or INV
- (2) Expressed in % of the **Total** Expenditure (column (a))

## 5. Indicative Implementation Schedule (periods broken down per quarter)

<b>Contracts</b>	<b>Start of tendering</b>	<b>Signature of contract</b>	<b>Project Completion</b>
Contract 1 - Service	Q1 2010	Q3 2010	Q4 2011
Contract 2 - Works	Q1 2010	Q3 2010	Q4 2011
Contract 3 - Supply	Q2 2010	Q4 2010	Q4 2011

## 6. Cross cutting issues

### 6.1 Equal Opportunity:

The project will benefit both women and men through improvements in environmental protection and safety. On all activities, both men and women will have equal opportunities to compete for contracts and to work on any related activities.

### 6.2 Environment:

There are substantial environmental gains to the Beneficiaries by accomplishment of this project since a better management of sealed radioactive sources including radioactive lightning rods should decrease the risks of their malevolent use and thereby risks of contamination of the environment.

### 6.3 Minorities:

On all activities, minorities will have equal opportunities to compete for contracts and to work on any related activities.

**ANNEXES**

- I- Logical framework matrix in standard format
- II- Amounts (in EUR) contracted and disbursed per quarter over the full duration of the project
- III- Description of Institutional Framework
- IV - Reference to laws, regulations and strategic documents
- V- Details per EC funded contract

**ANNEX 1: Logical framework matrix in standard format**

LOGFRAME PLANNING MATRIX FOR Project Fiche	Programme name and number – 2009 IPA Horizontal Programme on Nuclear Safety and Radiation Protection – 2009/xxx/xxx	
Management of sealed radioactive sources, including radioactive lightning rods	Contracting period expires – 2 years following the date of the conclusion of the financing agreements	Disbursement period expires – 1 year following the end date for execution of contracts
	Total budget: EUR 1 350 000	IPA budget: EUR 1 350 000

<b>Overall objective</b>	<b>Objectively verifiable indicators</b>	<b>Sources of Verification</b>	
It is to decrease the radiological risks for both members of the public and the workers that are associated to radioactive waste in the former Yugoslav Republic of Macedonia, Montenegro and Kosovo.		Final project report.	
<b>Project purpose</b>	<b>Objectively verifiable indicators</b>	<b>Sources of Verification</b>	<b>Assumptions</b>
To manage sealed radioactive sources and notably radioactive lightning rods according to the Community <i>acquis</i> and best EU practices.	Concrete removal, transport, processing and storage of a number of sealed radioactive sources in the former Yugoslav Republic of Macedonia and in Montenegro. Visit of the storage facilities	Final report of the project	The storage facilities for radioactive waste must be licensed and operational when the tendering procedure for the project is launched
<b>Results</b>	<b>Objectively verifiable indicators</b>	<b>Sources of Verification</b>	<b>Assumptions</b>
1. Critical analysis of the current management practices for radioactive waste in the three Beneficiaries;	Identification of drawbacks and gaps in current radioactive waste management practices	Progress report	There is a good communication between the contractor and the responsible persons in charge of radioactive waste management in the three countries of concern
2. Comprehensive inventories of sealed radioactive sources, including radioactive lightning rods in each of the three Beneficiaries, established;	Databases available and consultable	Progress report and visit in the premises of the regulatory bodies of the three countries	The nuclear regulatory bodies must be fully operational
3. Appropriate regulations on the processing, transport and storage of sealed radioactive sources, including radioactive lightning rods, drafted (for the three Beneficiaries);	Drafted regulations submitted to the government or supervising ministries for approval	Progress report and premises of the regulatory bodies	The nuclear regulatory bodies must be fully operational
4. All radioactive lightning rods removed, dismantled, and their radioactive content properly managed, including their storage in a licensed facility (the former Yugoslav Republic of	At least 361 radioactive lightning rods on the roofs of buildings	Progress report and visit of the storage facilities in the former Yugoslav Republic of Macedonia and in Montenegro	The storage facilities, including the necessary equipment to dismantle, treat, condition and package

<p>Macedonia and Montenegro);</p> <p>5. All radioactive sources currently stored at users premises transported to a central and licensed processing and storage facility (the former Yugoslav Republic of Macedonia and Montenegro);</p> <p>6. Site for the future construction of a processing and storage facility for radioactive waste, including sealed radioactive sources in Kosovo, selected;</p> <p>7. The future processing and storage facility for sealed radioactive sources in Kosovo designed;</p> <p>8. Terms of Reference and technical specifications for the construction and fitting out of the processing and storage facility for radioactive waste in Kosovo determined;</p> <p>9. Personnel of the nuclear regulatory bodies in the former Yugoslav Republic of Macedonia, Montenegro and Kosovo trained on radioactive waste management issues.</p>	<p>Temporary storage facilities for radioactive waste emptied</p> <p>Governmental decision to construct a processing and storage facility for radioactive waste in Kosovo</p> <p>Drawings of the building accepted by the supervising Ministry</p> <p>Tender dossier prepared for the subsequent tendering</p> <p>Attendance certificates delivered to the trainees</p>	<p>Progress report</p> <p>Progress report Premises of the nuclear regulatory body</p> <p>Progress report Premises of the nuclear regulatory body</p> <p>Progress report Premises of the nuclear regulatory body</p> <p>Progress report Premises of the nuclear regulatory body</p>	<p>sealed radioactive sources are available and operational</p> <p>There is a dedicated vehicle available for the transport of sealed radioactive waste</p> <p>The nuclear regulatory body in Kosovo is fully operational. There is no opposition from the members of the public through the public consultation mechanism that is related to the preliminary environmental impact assessment</p> <p>There is a positive decision from the authorities of Kosovo to construct such a facility</p> <p>There are enough applicants to be trained in each of the Beneficiaries</p>
Activities	Means	Costs	Assumptions
<p>Activity 1 – Regulatory assistance</p> <p>1.1. On the basis of the reviewing of the existing legislation and regulations on radioactive waste management against the Community acquis and best EU practices, the contractor will proceed with the identification of possible drawbacks and inconsistencies both in terms of regulations and management practices in each of the three Beneficiaries;</p> <p>1.2. Assistance will be provided to the nuclear regulatory bodies of the former Yugoslav Republic of Macedonia, Montenegro and Kosovo to draft appropriate pieces of legislation and regulations that would improve current management practices for radioactive waste;</p> <p>1.3. Assistance to the nuclear regulatory bodies of the former Yugoslav Republic of Macedonia, Montenegro and Kosovo to set-up databases for all types of radioactive waste that are existing in their countries, including sealed radioactive sources and radioactive lightning rods;</p> <p>1.4. Assistance will be provided to the nuclear</p>	<p>Service contract</p>	<p>EUR 350 000</p>	

<p>regulatory bodies of the former Yugoslav Republic of Macedonia and Montenegro to review the safety reports that should be prepared by a third party (see works contract No 2) concerning the removal, dismantling, transport, treatment, conditioning, packaging and storage operations of sealed radioactive sources including radioactive lightning rods;</p> <p>1.5. Assistance will be provided to the nuclear regulatory body of Kosovo to review the safety reports that should be prepared by a third party (see works contract No 2) concerning the sitting and design of the treatment/conditioning/packaging and storage facility for radioactive waste;</p> <p>1.6. Training courses will be organised by the contractor in order to enhance the technical capacity of the personnel of the national nuclear regulatory bodies as well as the staff of their Technical Support Organisations of the three Beneficiaries in the field of radioactive waste management with a special emphasis on management of sealed radioactive sources.</p> <p>1.7. Supervision of the works component of the project is part of the service contract.</p>			
<p>Activity 2</p> <p>2.1. Establishment of a detailed management plan for the removal, transport, processing, and storage of sealed radioactive sources, including radioactive lightning rods in the former Yugoslav Republic of Macedonia and in Montenegro. This plan should be accompanied by all relevant safety analysis reports to be submitted to the national regulatory body of each of these Beneficiaries;</p> <p>2.2. Once the detailed management plan has been approved by the relevant national safety authorities, the practical removal, transport, processing and storage of sealed radioactive sources, including radioactive lightning rods will be performed. Conditioned sealed radioactive sources will be stored in the national storage facilities for radioactive waste that have been licensed in the former Yugoslav Republic of Macedonia and in Montenegro. All identified radioactive lightning rods in the former Yugoslav Republic of Macedonia and Montenegro will be removed and managed according to the detailed management plan. This activity may involve the purchase of some specific equipment.</p> <p>2.3. Sealed radioactive sources that are currently stored at users premises and in particular those sources that are stored in the Centre of Radioisotopes in Skopje will be transported and conditioned in the national processing and storage facility for radioactive waste.</p> <p>2.4. The future processing and storage facility for radioactive waste in Kosovo will be designed and the technical specifications of all types of equipment will be determined. The level of detail of the technical specifications should enable later on the preparation of tender dossiers.</p>	Works contract	EUR 900 000	Local enterprises can perform this type of work
<p>Activity 3</p> <p>Supply and/or renting of equipment to perform the removal, transport and dismantling operations</p>	Supply contract	EUR 100 000	

**ANNEX II: Amounts (EUR) contracted and disbursed per quarter over the full duration of the project**

<b>Contracted</b>	<b>Q3 2010</b>	<b>Q4 2010</b>	<b>Q1 2011</b>	<b>Q2 2011</b>	<b>Q3 2011</b>	<b>Q4 2011</b>
Contract 1 - Service	350 000					
Contract 2 - Works	900 000					
Contract 3- Supply		100 000				
<b>Cumulated</b>	<b>1 250 000</b>	<b>1 350 000</b>	<b>1 350 000</b>	<b>1 350 000</b>	<b>1 350 000</b>	<b>1 350 000</b>
<b>Disbursed</b>						
Contract 1 - Service	200 000			120 000		30 000
Contract 2 - Works	400 000		200 000		200 000	100 000
Contract 3 - Supply		80 000	20 000			
<b>Cumulated</b>	<b>600 000</b>	<b>680 000</b>	<b>900 000</b>	<b>1 020 000</b>	<b>1 220 000</b>	<b>1 350 000</b>

**ANNEX III: Description of the Institutional Framework**

*The former Yugoslav Republic of Macedonia*

Nuclear safety and radiation protection are regulated with the Law on Ionising Radiation Protection and Safety (Official Gazette of the Republic of Macedonia No.48/02) that replaced the old Law from the Former Yugoslavia. The provisions of the Law envisaged the establishment of Competent Authority in the field of Radiation Protection and Safety – the Radiation Safety Directorate. The Radiation Safety Directorate was established on 05.05.2005 as the competent authority in accordance the provisions of the Law. The Radiation Safety Directorate is established as an independent governmental institution with attribute of legal person for carrying out activities in the area of radiation protection.

Since 2005 the RSD has started to strengthen its administrative and technical capacities. In order to adjust and harmonise the national legislation with the EU acquis, the Law amending the Law on Ionizing Radiation Protection and Safety (Official Gazette of the Republic of Macedonia No.135/07) was promulgated in 2007.

The Law regulates the system of control of all ionising radiation sources, as well as the protection of population and environment against the exposure or potential exposure to ionising radiation. The Law also regulates management of radioactive waste and nuclear material, as well as the establishment of the measures of radiation safety and nuclear security.

*Montenegro*

Ionising radiation protection in the Republic of Montenegro is regulated by the laws of Federal Republic of Yugoslavia, which are, until the adoption of Montenegrin laws, applied as a laws of the Republic of Montenegro (Article 64 of the Constitutional Charter of the State Union of Serbia and Montenegro, Official Gazette of Serbia and Montenegro, No. 1/2003).

Following the Referendum on Independence, Montenegrin Parliament made a formal Declaration, of Independence on 3rd June 2006. As far as the national law is concerned, it is worth mentioning that Montenegro has, in order to avoid legal vacuum, declared in its Decision on Proclamation of Independency that it will to take over and implement the legislation of the State Union of Serbia and Montenegro before adoption of appropriate Montenegrin laws and regulations. So, the radiation protection laws of Federal Republic of Yugoslavia are still in force in Montenegro.

The division of competences in radiation protection among the Ministry of Health, Labour and Social Care (for medical sources), the Ministry of Tourism and Environment (for all other sources) and the Ministry of Interior and Public Administration (transport and radiological emergency), indicated the shortcomings concerning human and technical resources and a non-unified database of licences issued and sources registered, and above all the non-compliance with some of the European standards. Although an interim regulatory body for the control of medical sources was established within the Ministry of Health, Labour and Social Care and a Department for Regulatory Control of Radiation Sources established within the Health Protection Sector, the need arose to strengthen institutional and administrative capacities in ionising radiation protection, to join licensing and inspection control within the same entity and comply with European standards.

In addition, there was also the need to secure the legal grounds for strengthening institutional capacities. It was achieved by adopting the Environment Law (Official Gazette of MNE, no. 48/08 of 11.08.2008) envisaging the establishment of the Environmental Protection Agency. This led to the change in the division of competences and consequently the amendments to the Decree on the Organisation and Method of Operation of State Administration.

According to the amended 2008 Decree, the competences concerning radiation protection are now divided among the Ministry of Tourism and Environment (policies and legislation related to radiation sources), Ministry of Interior and Public Administration (transport of hazardous substances and radiological emergency response) and the Environmental Protection Agency (EPA) which will be implementing the laws and commitments deriving from approved and ratified conventions and treaties in radiation protection, but also other environment-related issues.

All the expert and associated tasks in the area of radiation protection and safety shall be conducted by EPA, which is the single most significant novelty as compared to the existing legislation, thus increasing the effectiveness of control and supervision over the safe use of radiation sources. So, the designated competent authorities to carry out the state regulatory supervision of radiation safety based on above mentioned laws are Ministry of Tourism and Environment, Environmental Protection Agency and Ministry of Interior and Public Administration.

### Kosovo

According to provisions of the draft Law on protection against non-ionised, ionised radiation and nuclear security, management of radionuclides should be regulated by the Ministry of Environment and Spatial Planning. In principle this Law is expected to be promulgated in 2009.



## **ANNEX IV: Reference to laws, regulations and strategic documents**

### The former Yugoslav Republic of Macedonia

- Law on ionizing radiation protection and safety (Official gazette of the Republic of Macedonia No. 48/02);
- Law amending the Law on Ionizing radiation protection and safety (Official gazette of the Republic of Macedonia No. 135/07);
- Strategic plan of the Radiation Safety Directorate for the period of 2008-2010;
- National programme for adopting the ACQUIS (NPAA 2009-2011);
- Nuclear Safety and Radiation Protection action of the multi-country MIPD programme (2008-2010);
- EURATOM Directive 2003/122.

### Montenegro

- Law on Protection against Ionizing Radiation 1996;
- Law banning the construction of nuclear power plants in FRY 1995;
- Law on transport of danger substances 2008;
- Law on rescue and protection 2007;
- National Strategy for emergency situation 2007;
- Law on Environment 2008;
- Law on protection from ionizing radiation and radiation safety (adopted by Government) 2008;
- National Action Plan in Emergency Situation (radiological accident) at the beginning - 2009;
- Secondary legislations (planned until 2010);
- Strategy on radiation protection and radiation safety with Action plan (planned 2011).

### Kosovo

Since the early 90's there has been no legal system in place concerning nuclear safety and radiation protection in Kosovo. Some regulations exist but are limited to application of ionising radiation in medical establishments (Administrative Instruction 03/2007 on application of ionised and non-ionised radiation in health).

## **ANNEX V: Details per EC funded contract**

Contract 1: A service contract for an amount of EUR 350 000 will be concluded following a tender that will be launched in Q1 2010. The Contractor is expected to fulfil all the sub-activities listed in section 3.4 for activity 1 with the support of relevant organizations established in the former Yugoslav Republic of Macedonia, Montenegro and Kosovo.

Contract 2: A works contract for an amount of EUR 900 000 will be concluded following a tender that will be launched in Q1 2010.

Contract 3: A supply contract for a maximum amount of EUR 100 000 will be concluded following a tender that should be launched in Q2 2010

Activities 1, 2 and 3 of the project will be tendered, awarded and implemented in accordance with the PRAG.