Standard Summary Project Fiche for the Transition Facility

1. Basic Information

1.1. CRIS Number: 2004/006-245-04-01

1.2. Twinning Number : LV/2004/ENV/01

1.3. Title: **Radioactive waste management and reactor decommissioning**

1.4. Sector: Energy

1.5. Location: Republic of Latvia
Ministry of Environment, Peldu 25, Riga, LV-1050, Latvia,
State radioactive wastes management agency "RAPA", Miera iela 31, Salaspils, LV-2169, Latvia.

2. Objectives

2.1. Overall Objective:

Regulate exposure of general public to ionizing radiation

2.2. Project purpose:

Ensure safe handling of radioactive waste and safe decommissioning of research reactor

2.3. Justification

Comprehensive monitoring report on Latvia's preparations for EU membership (05.11.2003.) Chapter 14: Energy
Latvia should continue to pay attention to further strengthening the capacity of its newly established radioactive waste management agency RAPA.

3. Description

3.1. Background and justification:

At present all kinds of radioactive waste are stored and/or disposed of by the state-owned organization named RAPA that was established in the year 2001 under the authority of the Ministry of Environment. According to the regulations of the Government of Latvia No. 744 issued in December 3, 2003, the RAPA, Ltd. is transformed into state radioactive waste management agency in January 5, 2004. Storage and disposal operations of radioactive waste are taking place at the Baldone repository. The Government in June 26 2003 accepted the Concept of radioactive wastes management.

The decision of the Government of Latvia of October 26 1999 defines the decommissioning of Salaspils Research reactor up to the "green field "condition during the next 10 years. The initial decommissioning plan was accepted by the Government in 1999 and upgraded in 2003. The technical service assistance is necessary for preparation of the dismantling plan for Salaspils research reactor. Expert service is also necessary for preparation of recommendations for regulatory requirements for non-standard containers for storage of enriched uranium fuel. Up to now, the final agreement for repatriate the HEU fuel to Russia under the US-RF agreement is not reached. According to the initial decommissioning plan, the HEU must be reloaded into containers for dry storage to avoid corrosion of cladding and increasing of safety.

One of the salient strategic aspects for Latvia is that the storage/disposal capacity of the Baldone repository should be extended notably in order to accommodate about 1200 m³ of radioactive waste to be generated from the dismantling of the Salaspils research reactor. This would imply the construction of an eighth vault on the site. Therefore expert services for preparation of the report and recommendation for up-dating of waste acceptance criteria for radioactive waste disposal at Baldone, current transport practices against international recommendations (IAEA) and training activities on assessment of near-surface repositories (vault concept) in the field of operational and post-closure safety are necessary for implementation of best practices with radioactive waste in RAPA. The design for near-surface waste disposal vault and an integrated storage facility will be prepared in 2004 according to the **PHARE Project No LE 0109.01** "**Design of additional waste disposal vault and integrated storage facility for long-lived waste at Baldone".**

The demands of the Law of electronic documents, accepted by the Parliament in 2002, and introduction of the classified information in RAPA causes necessity significantly increase the safety of the acquisition, storage and exchange with information, taking into account, that the disposal site is located 25 km from Salaspils research reactor, which is a central organisation of RAPA. Upgraded radiation monitoring systems must be connected in the network for increasing of radiation's control efficiency, rapid identification of radioactive materials emission and for ensuring the protection of environment. Expert services in preparation of report for installation of computer systems, ensuring information protection and data security, as well as, the installation of computer systems is necessary.

The purpose of this project - "**Radioactive waste management and reactor decommissioning"** is to increase the institutional capacity of RAPA to ensure safe management practices with radioactive waste.

3.2. Linked activities:

- PHARE Project PH4.11/95 - Study on Pool Type Research Reactors in Countries Assisted by the PHARE Programme. The initial Salaspils research reactor's decommissioning plan was drafted in 1999 during execution of this PHARE project (completed);
- PHARE Horizontal programme for Community support in the field of Nuclear safety for Latvia in 2001 "Design of additional waste disposal vault and integrated storage facility for long-lived waste at Baldone" (LE 0109.01 – 0,1 MEUR). In framework of this project technical specifications and outline design for additional vault and an integrated storage facility for long-lived waste will be prepared (in progress);
- PHARE Horizontal programme for Community support in the field of Nuclear safety for Latvia in 2002 "Enhancement of Regulatory Capacity for Radiation and Nuclear Safety Infrastructure" (No 632.05.01 – 0,67 MEUR). The capacity of the regulatory body – Radiation Safety Centre will be strengthened in the framework of this project (shortly to be contracted);
- State investment project "Dismantling and decommissioning of Salaspils research reactor" (No.EV69-04). Decommissioning and dismantling activities will be performed during implementation of this investment Project (in progress).

The above-described projects do not overlap with the new TF project "**Radioactive waste management and reactor decommissioning"**

3.3. Results:

Guaranteed twinning results:

- improve the managerial structure of the radioactive waste management agency;

- up-dated of waste acceptance criteria for radioactive waste disposal at Baldone and prepared recommendations for the implementation of Council directive 2003/122/EURATOM of 22 December 2003 concerning control of high-activity sealed radioactive and orphan sources;
- increase safety in waste transportation area;
- prepare regulatory requirements for non-standard containers for reloading and storage of enriched uranium fuel ;
- prepare recommendations for optimization of radio – protection following the ALARA principle in regard to managing radioactive waste during dismantling of Salaspils research reactor
- preparation of plan for dismantling of Salaspils research reactor.

Guaranteed Supplies result:

- increased effectiveness of radiological control of objects and environmental protection
- equipment provision for computer systems, ensuring information protection and data security

3.4. Activities (*means are indicative*):

Twinning

I Field: <u>safe handling of radioactive waste</u> – 3 months in total (Resident twinning expert I)

1. **Preparation of description and recommendations for radioactive waste management and financing mechanism in RAPA;**

   Means: expertise for approx. 1 month provided by Resident twinning expert I

2. **Preparation of the report and recommendation for up-dating of waste acceptance criteria for radioactive waste disposal at Baldone, implementation of Council directive 2003/122/EURATOM of 22 December 2003 and current transport practices against international recommendations (IAEA);**

   Means: expertise for approx. 1 month provided by Resident twinning expert I
   1 seminar for approx. 20 officials;

3. **Training activities on assessment of near-surface repositories (vault concept) in the field of operational and post-closure safety;**

   Means: expertise for approx. 1 month provided by Resident twinning expert I
   1 seminar for approx. 20 officials;
   1 practical training “in the field” for approx.10 staff members;

<u>Duration of component – 3 months in total for all aforementioned activities.</u>

<u>Resident twinning expert I (3 months) profile</u>:

- Expert should have 10 years experience in radioactive wastes management;
- Fluency in English.

II Field: <u>safe decommissioning of research reactor</u> – 6 months in total (Resident twinning expert II)

1. **Preparation of recommendations for regulatory requirements for non-standard containers for storage of enriched uranium fuel;**

   Means: expertise for approx. 1 month provided by Resident twinning expert II

2. **Preparation of dismantling plan for Salaspils research reactor;**

   Means: expertise for approx. 3 months provided by Resident twinning expert II
   1seminar for approx.20 officials;
   1 study visit for 4 officials.

3. **Preparation of recommendations for optimization of radio – protection following the ALARA principle in regard to managing radioactive waste during dismantling of Salaspils research reactor**

   Means: expertise for approx. 2 months provided by Resident twinning expert II

Duration of component – 6 months in total for all aforementioned activities.

Resident twinning expert II (6 months) profile*:*
- Expert should have 10 years experience in decommissioning of nuclear facilities;
- Fluency in English

Supply

Preparation of computer systems for treatment of radiological and classified information

Means : Supply contract.

3.5. Lessons learned:

Taking into account experience with the other projects, we would like to point out that establishment of the Steering Committee, regular meetings and supervision done by it are in high importance for ensuring sound and effective implementation of the project.
According to the Report of Project PH4.11/95 Phase 2 Report: Recommendations for Future Safe Strategies there are recommendations that will be taken into consideration by the implementing of proposed activities:

1) Nuclear Safety "6.1.3. . - …Perform a safety analysis of spent and fresh fuel management options and to establish the corresponding licensing process (including the licensing of casks)". This remark is going to be taken into consideration for solution of spent fuel problem and promotion of D&D of Salaspils research reactor.
2) "6.1.3. – Resolve the pending waste management licensing issues including the waste package, waste transport and acceptance of decommissioning wastes at the Baldone site" .The wastes acceptance criteria are defined. The licensing procedure of radioactive wastes packages are performed under the Contract with IAEA with execution of necessary tests.
3) "6.1.3. – The setting up of a Safety/ALARA Committee composed of managers and senior officers, including safety and QA officers to oversee the whole process" This remark was prepared for D&D of Salaspils research

reactor , but it will be attributed also to the radwastes management policy of RAPA .

4. Institutional Framework

Over the last few years changes have taken place in radwastes management infrastructure of Latvia. The new "Law on radiation safety and nuclear safety" (October 26, 2000) was passed by Parliament and new national radwastes management organisation "RAPA" was established in 2001. According to the regulations of the Government of Latvia No. 744 issued in December 3, 2003, the RAPA, Ltd. is transformed into state radioactive waste management agency in January 5, 2004.

The main Counterpart/Beneficiary is Ministry of the Environment. Ministry of Environment is the central organization in protection environment and nature in Latvia. Ministry realizes the state supervision and control in the environmental protection. Senior project officer is Ms. Vija Geme.

The national radiation and nuclear safety regulatory authority is Radiation Safety Centre. The Radiation Safety Centre, RDC, is a government authority with the task of protecting people and the environment from the harmful effects of radiation. The Radiation Safety Centre was established in 2001. The **Mission** of the Radiation Safety Centre is "to provide for the safe use of ionising radiation sources and to protect people and the environment against potential harmful effects, simultaneously ensuring to people the maximum benefit from use of radiation sources". RDC strives to develop competence on radiation issues within RDC and for the operators of radiation sources to minimise the risks related to any practice. Therefore RDC participates and facilitates involvement of operators in different cooperation activities on a national and international level in the field of radiation safety and nuclear safety.

Beneficiary of the project is the radioactive waste management organisation "RAPA". RAPA is an operator of both nuclear sites in Latvia – Salaspils research reactor and disposal site "Radons. The main task of RAPA is to ensure the safe maintenance of nuclear objects and management of radioactive wastes in Latvia. RAPA is also responsible for decommissioning of Salaspils research reactor.

The Steering Committee of the project will consist of representatives of the Ministry of Environment, the radioactive waste management organisation "RAPA", Radiation Safety Centre and be supervised by the SPO of the Ministry of Environment and representative of European Commission.

5. Detailed Budget (MEUR)

	Transition Facility Support			**National Co-financing**		**In EUR**
Project Components	**Investment Support**	**Institution Building**	**Total TF (= I + IB)**	**Eligible costs**	**Non-eligible costs**	**TOTAL**
Contract 1 Twinning		300 000	300 000	30 000*		330 000
Contract 2 Supply	99 250		99 250	34 650**	6237	133 900
TOTAL	**99 250**	**300 000**	**399 250**	**64 650**	**6237**	**463 900**

* National co-financing in terms of Twinning component will provide office space, office support, salaries for the counterpart staff.
**Joint co-financing, excluding all taxes and duties.

6. Implementation Arrangements

6.1. Implementing Agency:

- Central Financing and Contracting Agency, Ministry of Finance, Smilšu iela 1, Riga LV-1919;
  PAO **Mrs. Inta Vasaraudze**, Under State Secretary of the Ministry of Finance;
- The overall technical responsibility is under the Ministry of Environment; Peldu 25, Riga, Latvia, LV-1050;
  Contact person **SPO: Ms. Vija Geme**, Deputy State Secretary, Ministry of Environment; Phone +371 7026401; Fax +371 782106, e-mail: vija.geme@vidm.gov.lv

6.2. Twinning

For the twinning Covenant a counterpart will be the Ministry of Environment; Peldu 25, Riga, Latvia, LV-1050;
Contact person **SPO: Ms. Vija Geme**, Deputy State Secretary, Ministry of Environment; Phone +371 7026401; Fax +371 782106, e-mail: vija.geme@vidm.gov.lv

- The operational counterpart of the Twinning will be:

Mr. Andris Abramenkovs, Director of the State radioactive waste management agency "RAPA", Miera str. 31, Salaspils, LV-2169, Latvia, Phone: +371 7901212, Fax: +371 7901211.

6.3. Non-standard aspects

There will be no non-standard aspects regarding implementation of the project. Twinning manual will be followed in case of twinning.
Ratio: if during project implementation the project cost for some reasons will decrease, the Transition Facility financing will also decrease proportionally.

6.4. Contracts

Contract 1 - Twinning Covenant: 300 000 EUR (parallel co-financing);
Contract 2 - Supply contract: 133 900 EUR (joint co-financing).

7. Implementation Schedule

	Start of tendering	Start of project activity	Completion
Twinning	I Quarter of 2005	II Quarter of 2005	IV Quarter of 2005
Supply	III Quarter 2005	I Quarter 2006	III Quarter 2006

8. Sustainability

The equipment provided to the responsible institutions will be maintained by their own means, the necessary costs will be envisaged in each institution's yearly budget from the state budget programme 12.05.00 " Management of radioactive materials".

The Beneficiary has adequate staff and financial resources from the state budget programme 12.05.00 " Management of radioactive materials" to maintain the administrative function.

9. Conditionality and sequencing

- If a decision is taken to repatriate the HEU fuel from the Salaspils Research Reactor to the Russian Federation before start of the relevant activity, then the first Twinning activity in the II Field (Preparation of recommendations for regulatory requirements for non-standard containers for storage of (highly) enriches uranium fuel) shall be deleted.
- Ensured co-financing by the state budget (for financial years 2005-2006)
- Political commitment at the State level to continue support for development of radwastes management system
- PHARE 2001 project for designing of vault and additional facility implemented

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ANNEXES TO PROJECT FICHE

1. Logical framework matrix in standard format
2. Detailed implementation chart
3. Contracting and disbursement schedule by quarter for full duration of programme (including disbursement period)
4. List of relevant Laws and Regulations
5. Indicative budget breakdown.

Logical framework matrix **Annex 1.**

LOGFRAME PLANNING MATRIX FOR PROJECT Radioactive waste management and reactor decommissioning		
	Contracting period expires 15 December 2006	Disbursement period expires 15 December 2007
	Total budget: **463 900**	TF budget: **399 250**

Overall objective	**Indicators of Achievement**	**Sources of Information**	
Regulate exposure of general public to ionizing radiation	• Increased administrative capacity and safety of radioactive waste management in Latvia • radioactive waste management system corresponds to EU best practice including implementation of the Council directive **2003/122/EURATOM** and IAEA recommendations	• State of environment reports • National reports by nuclear regulatory bodies	
Project purpose	**Indicators of Achievements**	**Sources of Information**	**Assumptions**
Ensure safe handling of radioactive waste and safe decommissioning of research reactor	• Salaspils research reactor is decommissioned and dismantled in 2009 • RAPA meets national, EU and IAEA requirements to radioactive waste management	• Annual reports of RAPA • Annual reports of Radiation Safety Centre • Monitoring programme reports • Progress reports by experts on implementation of methods for increasing safety during decommissioning and dismantling activities; •	• Co-ordination with other projects or processes or institutions is taking place • PHARE 2001 project results in designing of vault and integrated storage facilities
Results	**Indicators of Achievement**	**Sources of Information**	**Assumptions**
- Improve the managerial structure of the radioactive waste management agency; - up-dated waste acceptance criteria for radioactive waste	• Staff of RAPA understand the radioactive wastes management requirements for decommissioning of Salaspils	• European Commission reports • Technical monitoring reports • Statistical information and annual reports on state of environment	• Supportive information from another organisations is delivered in due time and is reliable; • Adequate yearly allocation from

disposal at Baldone and prepared recommendations for the implementation of Council directive **2003/122/ EURATOM** 22 December 2003 concerning highly active sealed sources; - increased safety in waste transportation area; - preparation of plan for dismantling of Salaspils research reactor; - prepare regulatory requirements for non-standard containers for reloading and storage of enriched uranium fuel; - prepared recommendations for optimization of radio – protection following the ALARA principle in regard to managing radioactive waste during dismantling of Salaspils research reactor - increased effectiveness of radiological control ob objects and environmental protection - equipment provision for computer systems, ensuring information protection and data security.	research reactor and safe maintenance of disposal site • Guidance for safe transport of radioactive wastes is established and accepted by regulatory body • Implemented the Council directive **2003/122/ EURATOM** of 22 December 2003 demands in sealed sources management practises of RAPA • The licensee to RAPA for decommissioning of Salaspils research reactor and reloading of spent fuel in transport/storage containers is issued by regulatory body • Area radiation monitoring (computer controlled) systems at Salaspils research reactor and disposal site are installed in 2006 • Information protection systems at Salaspils research reactor and disposal site are installed in 2006	• Progress reports by experts vis-à-vis implementation of methods to reduce environmental impact •	state budget • Adequate company involved in the project realisation
Activities	**Means**		**Assumptions**
I Field: <u>safe handling of radioactive waste</u> ➢ preparation of description and recommendations for radioactive waste management and financing mechanism in RAPA; ➢ preparation of the report and recommendation for up-dating of waste acceptance criteria for radioactive waste disposal at Baldone , implementation of Council directive **2003/122/ EURATOM** of 22 December 2003 concerning highly active sealed	<u>Twinning covenant:</u> ➢ **<u>3 months in total (RTE I):</u>** - short term expertise approx. 1 month in total - short term expertise approx. 1 month in total; - 1 seminar for approx. 20 officials		• Adequate provision from the state budget; • Timely and adequate implementation of the construction's projects;

sources and current transport practices against international recommendations (IAEA); ➢ Training activities on assessment of near-surface repositories (vault concept) in the field of operational and post-closure safety; **II Field: <u>safe decommissioning of research reactor</u>** ➢ preparation of recommendations for regulatory requirements for non-standard containers for storage of enriched uranium fuel; ➢ preparation of dismantling plan for Salaspils research reactor ; ➢ preparation of recommendations for optimization of radio – protection following the ALARA principle in regard to managing radioactive waste during dismantling of Salaspils research reactor ➢ Preparation of computer systems for treatment of radiological and classified information	- short term expertise approx. 1 month in total - 1 seminar for approx 20 officials - 1 practical training "in the field" for approx. 10 staff members ➢ **<u>6 months in total (RTE II):</u>** - short term expertise approx.1 month in total - short term expertise approx.3 months in total; - seminar for approx. 20 officials; - 1 study visit for approx.4 people - short term expertise approx.2 months in total ➢ <u>Supply contract</u>		
			Preconditions • Adequate financial support from the State budget (financial years 2004-2006)

- Political commitment at the State level to continue support for development of radwastes management system
- PHARE 2001 project for designing of vault and additional facility will be executed up to May -June 2004.

Annex 2

DETAILED IMPLEMENTATION SCHEDULE OF ACTIVITIES

	2004												2005												2006											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Contract 1 **Twinning**																																				
I Field: <u>safe handling of radioactive waste</u>																						X	X	X												
II Field: <u>safe decommissioning of research reactor</u>																X	X	X	X	X	X															
Contact 2 **Supply**																																				
Procurement of equipment for upgrade of computer networks																																				
Preparation of tender documentation																	X	X	X	X	X															
Tendering process																						X	X	X												
Supply of equipment																									X	X	X	X	X	X	X	X	X			

Annex 3

CUMULATIVE CONTRACTING and DISBURSEMENT SCHEDULE (EUR million)

	2004		2005				2006			
	III	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**
Contract1-Twinning contract										
Contracted total:				**300 000**						
TF:				300 000						
National:										
Disbursed total:				**200 000**	**250 000**	**300 000**				
TF:				200 000	250 000	300 000				
National:				10000	20000	30 000				
Contract 2-Supply contract										
Contracted total:							**133 900**			
TF:							99 250			
National:							34 650			
Disbursed total:							**80 340**	**120 510**	**133 900**	
TF:							59 550	89 325	99 250	
National:							20 790	31 185	34 650	

Annex 4.

List of relevant Laws and Regulations

No	Date, issued by, type, No.	Title
1.	Saeima, 24.04.1997, amended on 26.10.2000 Law	The Law on Radiation Safety and Nuclear Safety
2.	03.07.2001 Cabinet of Ministers regulations Nr.288	The Cabinet Regulations on Practices involving Ionising Radiation Sources, which do not Require a Special Permit (License) or Permit
3.	03.07.2001 Cabinet of Ministers regulations Nr.289	The Cabinet Regulations on State Duty Regarding Issuance of Special Permit (License) or Permit for Activities involving Ionising Radiation Sources
4.	03.07.2001 Cabinet of Ministers regulations Nr.290	The Cabinet Regulations on the Criteria for the Application for a Special Permit (License) or Permit for Activities Involving Ionising Radiation Sources
5.	03.07.2001 Cabinet of Ministers regulations Nr.294	The Cabinet Regulations on the Minimum Amount of Operator's Civil Liability Insurance if Activities Involving Ionising Radiation Sources are Practised
6.	03.07.2001 Cabinet of Ministers regulations Nr.301	The Cabinet Regulations on the Procedure of the Issuance of a Special Permit (License) or Permit for Activities Involving Ionising Radiation Sources and Procedure for Public Dispute on the Construction of Ionising Radiation Facilities of State Significance or on Essential Modifications Thereto
7.	03.07.2001 Cabinet of Ministers regulations Nr.307	The Cabinet Regulations on Protection against Ionising Radiation During the Transport of Radioactive Materials
8.	18.09.2001 Cabinet of Ministers regulations Nr.402	The Cabinet Regulations on the Fill-in of the Information in the Radiation Safety Data Sheets for the Sources of Ionising Radiation
9.	18.09.2001 Cabinet of Ministers regulations Nr.406	The Cabinet Regulations on the Packaging and Labelling of the Sources of Ionising Radiation
10.	23.10.2001 Cabinet of Ministers regulations Nr.545	Procedure and Order of Personnel Exposure Control and Accountancy
11.	27.12.2001 Cabinet of Ministers regulations Nr.538	Regulations on Medical Contra-Indications for Practices with Sources of Ionizing Radiation
12.	03.01.2002 Cabinet of Ministers regulations Nr.5	The Procedure for Dismantling of Ionizing Radiation Facilities that do not Contain Radioactive Substances
12.	19.03.2002 Cabinet of Ministers regulations Nr.129	Requirements for Practices with Radioactive Waste and Associated Materials Thereto
13.	09.04.2002 Cabinet of Ministers regulations Nr.149	Regulations on Protection against Ionising Radiation
14.	16.05.2002 Cabinet of Ministers regulations Nr.157	Criteria and Principles for Establishment of Equivalence for Different Radioactive Waste
15.	03.12.2003. Cabinet of Ministers regulations Nr.744	The reorganization of State company RAPA , Ltd. To the State radioactive waste management agency