Country Waste Profile Report for

SLOVENIA

Reporting Year: 2007

For guidance on reading Country Waste Profile Reports,
please refer to the following internet based document:

http://www-newmdb.iaea.org/help/profiles9/guide.pdf

For further information, please contact the Responsible Officer via e-mail:
NEWMDB@IAEA.org

Waste Classification Schemes

Country: SLOVENIA Reporting Year: 2007

Waste Class Matrix: **IAEA Def.** This country does use the IAEA Scheme: Yes

Description: The Agency's standard matrix

	Distribution %			
Waste Class Name	VLLW	LLW	ILW	HLW
VLLW	100.0	0.0	0.0	0.0
LLW	0.0	100.0	0.0	0.0
ILW	0.0	0.0	100.0	0.0
HLW	0.0	0.0	0.0	100.0

Comment **# 14752: Waste Matrix IAEA Def.**

National Classification of radioactive waste (regulation JV7, come into force in 2006).
Used nationwide by all groups.

Definition of «unprocessed waste» and «processed waste»:

This country uses the IAEA standard definition:

	as-generated waste	processed for handling	processed for storage	processed for disposal
Jnprocessed means:	x			
Processed means:		x	x	x

Groups Overview

Country: SLOVENIA Reporting Year: 2007

Reporting Group:	**ARAO**
Inventory Reporting Date:	December 2007
Waste Matrix Used:	IAEA Def.
Description:	ARAO- Agency for Radwaste Management is a non-profit organisation of the Slovene Government which provides a state-owned public service for radioactive waste management. The main objective of the ARAO is to provide efficient, safe and responsible management for all types of nuclear waste.

Site Name	Facility Name	Facilities Defined		
BRINJE R	SF STORAGE		storage	
BRINJE S	CISF		storage	
KRSKO NPP	KRSKO NPP	processing	storage	
LILW Rep.	LILW Rep.			disposal

Attachment **#882: Reporting Group**

ARAO_annual_ report_2002.pdf

ARAO Annual report 2002

Attachment **#997: Reporting Group**

ARAO_AnnualReport_2003.pdf

ARAO Annual report 2003

Attachment **#1219: Reporting Group**

ARAO_annual_ report_2005.pdf

ARAO Annual report 2005

Attachment **#1417: Reporting Group**

ARAO_annual_ report_2006.pdf

ARAO Annual report 2006

Attachment **#1589: Reporting Group**

ARAO_Annual_report_2007.pdf

ARAO Annual report 2007

Site (Structure) : BRINJE R

Country: SLOVENIA Reporting Year: 2007

Full Name: Institut Josef Stefan Research Reactor Centre, TRIGA Mark II research reactor

Description:

Official Website:

License Holder(s): Institut Josef Stefan Research Reactor Centre
Jamova 39, SI-1000, Ljubljana, Slovenia
tel: +386 1 477-3900 (operator)
fax: +386 1 2519-385
http://www.ijs.si/

Waste management facilities that are located at this site:

Facility:	**SF STORAGE**
Description:	There are two spent fuel storage pools which are an integral part of TRIGA Mark II research reactor.

Storage part of facility **SF STORAGE**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
VLLW	No	No
LLW	No	No
ILW	No	No
HLW	Yes	No

List SRS?	No
List UMMT?	No

Capacity:	The capacity of the new pool is 195 spent fuel elements.

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
Pool-Old	pool	1966	Yes	No	No	No
Pool-New	pool	1992	No	No	No	No

Comment **# 12165: Storage Facility SF STORAGE**

IJS Reactor Infrastructure Centre

There are two interim storage pools which are part of the IJS Reactor Infrastructure Centre. The old storage pool is not in use. The new storage pool is maintained operational and prepared for immediate use if necessary. Both pools have been empty since 1999, when all spent fuel elements (total 219) were shipped to the USA for final disposal.

Site (Data) : BRINJE R

Stock of waste as at December 2007

Country: SLOVENIA Reporting Year: 2007

Site Name: **BRINJE R**

Full Name: Institut Josef Stefan Research Reactor Centre, TRIGA Mark II research reactor

Inventory Reporting Date: December 2007 Waste Matrix Used: IAEA Def.

No Waste Data to report.

Site (Structure) : BRINJE S

Country: SLOVENIA Reporting Year: 2007

Full Name: Central Storage Facility for Radioactive Waste in Brinje (CISF)

Description:

Official Website:

License Holder(s): ARAO - Agency for Radwaste Management, Parmova 53, SI-1000 Ljubljana, Slovenia

Waste management facilities that are located at this site:

Facility:	**CISF**
Description:	Central Storage Facility for Radioactive Waste in Brinje. A storage for low and intermediate level waste from small producers (medicine, industry and research).

Storage part of facility **CISF**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
VLLW	No	No
LLW	Yes	No
ILW	Yes	No
HLW	No	No

List SRS?	Yes
List UMMT?	No

Capacity:	~500 m3.

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
CISF-LILW	building	1986	No	No	No	Yes

Comment **# 12166: Storage Facility CISF**

The storage is a near-surface concrete building with the roof covered with a soil layer. The building is subdivided by concrete walls into nine storage sections and an entrance area. The ground plan of the facility is 10.6 m x 25.7 m with a height of 3.6 m. The useful capacity of the storage is about 500 m3, and the remaining small area is intended for workers, for loading and unloading the waste and for internal transport. The storage section at the back end of the building is deeper relative to the level of the other sections, and is intended for storage of more active spent sources. The facility is equipped with a ventilation system for reducing radon concentration and air contamination in the storage facility. The water and sewage collecting system is designed as a closed system to retain all liquids from the storage facility in the sump. Liquids are discharged after the measurements of the radioactive contamination which has to be below the limitation in the regulation. The electricity supply system is used for illumination of the storage facility, for heating of auxiliary rooms and for the powering of ventilation. The storage facility is also protected by an alarm system which is connected to a 24-hour security service.

Site (Data) : BRINJE S

Stock of waste as at December 2007

Country: SLOVENIA Reporting Year: 2007

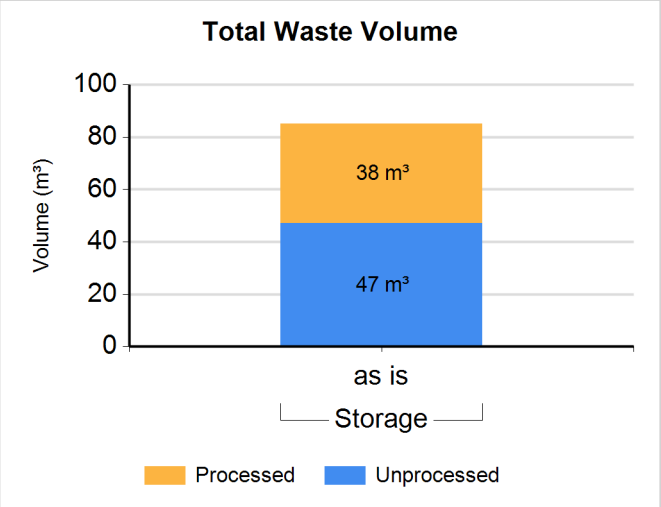
Site Name: **BRINJE S**

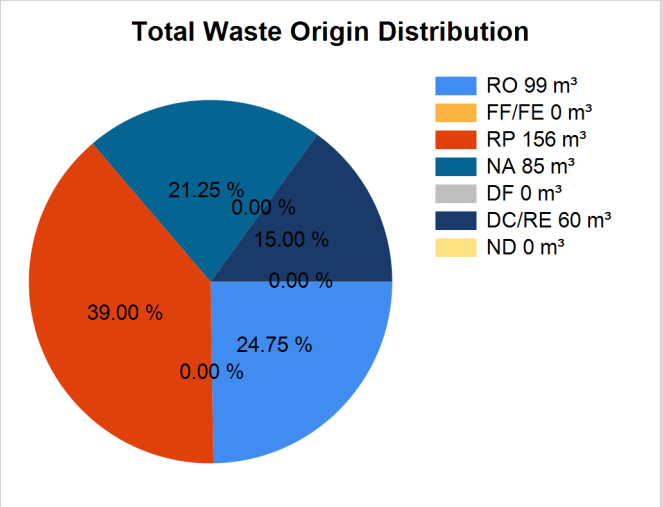
Full Name: Central Storage Facility for Radioactive Waste in Brinje (CISF)

Inventory Reporting Date: December 2007 Waste Matrix Used: IAEA Def.

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined





Note: where volume "as dispo" is provided, volume "as is" is used in the graph instead.

Waste Class: **LLW**

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
LLW	Storage	N	Y	29.000	29.000	0.00	0.00	60.00	40.00	0.00	0.00	0.00
LLW	Storage	Y	Y	11.000	11.000	0.00	0.00	96.00	4.00	0.00	0.00	0.00

Waste Class: **ILW**

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
ILW	Storage	N	Y	18.000	18.000	60.00	0.00	0.00	40.00	0.00	0.00	0.00
ILW	Storage	Y	Y	27.000	27.000	39.00	0.00	0.00	1.00	0.00	60.00	0.00

Site (Data) : BRINJE S

Stock of waste as at December 2007

Country: SLOVENIA Reporting Year: 2007

Spent Sources <=30 years in Storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)			cond	uncond	cat	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II m ore than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBqq					
	num/activity	num/activity	num/activity					
Co-60			1	N	Y	Y	1.600E+003	2004.01
			1.600E+003					
Co-60			248	Y	N	Y	3.800E+001	2001.01
			3.800E+001					

Spent Sources > 30 years in Storage

Nuclide	Number of Sources/Total Activity of Sources (GBq)		cond	uncond	cat	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 2 GBq	Group II more than 2GBq					
	num/activity	num/activity					
Am-241		10000	N	Y	Y	3.000E+002	2004.01
		3.000E+002					
Ra-226		2	Y	N	Y	2.700E+001	2000.01
		2.700E+001					

Site (Structure) : KRSKO NPP

Country: SLOVENIA Reporting Year: 2007

Full Name: Krsko Nuclear Power Plant

Description:

Official Website:

License Holder(s): Krsko Nuclear Power Plant
Vrbina 12, SI-8270 Krsko, Slovenia
tel: +386 7 480 20 00
http://www.nek.si

Comment **# 14746: Management of KRSKO NPP (http://www.nek.si)**

Under the Contract between the Government of the Republic of Slovenia and the Government of the Republic of Croatia on the regulation of status and other legal relations connected to investment in NEK, its exploitation and decommissioning, and the Memorandum of Association, both of which entered into force on 11 March 2003, NEK is organised as a limited liability company or l.l.c.

The basic capital of NEK is divided into two equal shares owned by the partners GEN energija l.l.c. Ljubljana and Hrvatska Elektropriveda p.l.c., Zagreb. NEK produces and supplies electricity exclusively in favour of the two partners, who each have the right and obligation to use 50% of its total output.

Comment **# 14747: About KRSKO NPP (http://www.nek.si)**

NEK has been in operation for twenty-five years. Projected life-time is until 2023. Over the course of the operational years NEK have witnessed a great many social changes and technological upgrades which have affected their work.

If twenty-five years ago their main aim was adapting to high professional and technical standards of nuclear technology, today the impact of market forces and public acceptability are equally important. If twenty-five years ago they were not yet considering the need to exchange domestic and international operational experience, today this is part of their everyday routine.

All of those changes, and in particular people's increased environmental awareness, are reflected in their everyday operation and in NEK's long-term strategy. They are reflected in the high level of nuclear safety. They guarantee, in the stability and competitiveness of their electricity production in comparison to other energy sources and, last but not least, in their objectives of achieving NEK's public acceptability.

Over the course of twenty-five years they have formed a qualified team which is strongly committed to their goals and to the values of safety culture. On the basis of know-how, continuous training, safe operation and operating efficiency, they are realizing an optimistic vision of the second half of NEK's lifecycle.

Attachment **#1418: Site**

NEK_Annual_Report_2004.pdf

NEK annual report 2004

Attachment **#1419: Site**

NEK_Annual_Report_2005.pdf

NEK annual report 2005

Attachment **#1420: Site**

NEK_Annual_Report_2006.pdf

NEK annual report 2006

Attachment **#1592: Site**

NEK_Annual_Report_2007.pdf

NEK annual report 2007

Waste management facilities that are located at this site:

Facility:	**KRSKO NPP**
Description:	Krsko NPP processing and storage facility

Site (Structure) : KRSKO NPP

Country: SLOVENIA Reporting Year: 2007

Storage part of facility **KRSKO NPP**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
VLLW	No	No
LLW	Yes	No
ILW	No	No
HLW	Yes	No

List SRS?	No
List UMMT?	No

Capacity:	Solid radwaste storage facility (LILW) with capacity of app.2500-2800m3 and the decontamination building. Total storage capacity of the spent fuel pool is 1694 fuel positions.

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
LILW-store	building	1983	No	No	No	No
SF-pool	pool	1983	No	No	No	No
LILW-decon	building	1998	No	No	No	No

Processing part of facility **KRSKO NPP**

The following shows processing status for waste classes and SRS.

Waste CLass	Actual	Planned
VLLW	No	No
LLW	Yes	No
ILW	No	No
HLW	No	No

Type:	Treatment, Conditioning
Year opened:	1983

Site (Structure) : KRSKO NPP

Country: SLOVENIA Reporting Year: 2007

Comment **# 12160: Spent Fuel Management Facilitiy in Krsko NPP**

Spent Fuel Management Facilitiy

The Republic of Slovenia has no off-site spent fuel management facilities. The spent fuel that is generated by the operation of the Krsko NPP is managed in storage facility which are integral parts of these nuclear facility.

The Fuel Handling Building is operated under the plant's license and is therefore not considered an independent nuclear facility. The fuel handling building consists of a spent fuel pool and the related fuel handling system which enables the handling of spent fuel.

Comment **# 12161: LILW Facilities in Krsko NPP**

The Krsko NPP includes the following buildings for radioactive waste management:
Auxiliary Building, where the systems for solid, liquid and gaseous waste processing are located. The building is located adjacent to the Fuel Handling Building and the Reactor Building within the Radiologically Controlled Area. The main activities related to waste management in this building are pre-treatment (waste collection, segregation, chemical adjustment, decontamination), treatment (radionuclide removal, volume reduction) and conditioning (immobilisation, packaging). The conditioned waste is transported to the Solid Radwaste Storage Facility by a forklift or an electric-powered cart using a special shield when necessary.

Solid Radwaste Storage Facility, an interim storage. Its operating license was extended in 1988 due to the lack of a LILW repository. It is a reinforced concrete structure, seismically qualified, located adjacent to the Auxiliary Building. Total area is 1470 m2 after an area optimisation project, applying a special steel structure to support the storage of waste on the second level, the useful volume was increased to allow waste storage for a longer period of time. The storage time in the Solid Radwaste Storage Facility is variable and is dependent on waste generation rates and waste management plans. The facility has provisions for storing different solid radioactive wastes separately and retrieving them for further processing (supercompaction, incineration, melting, clearance after decay of radionuclide) or disposal at a later time.

Decontamination Building, an interim storage, built for decay storage for two old steam generators and radioactive waste produced through replacement of steam generators and other larger components. The building meets the requirements for LILW storage. The outer wall and the roof slab design were governed by the radiological shielding requirements.

Site (Data) : KRSKO NPP

Stock of waste as at December 2007

Country: SLOVENIA Reporting Year: 2007

Site Name: **KRSKO NPP**

Full Name: Krsko Nuclear Power Plant

Inventory Reporting Date: December 2007 Waste Matrix Used: IAEA Def.

Comment **# 14746: Management of KRSKO NPP (http://www.nek.si)**

Under the Contract between the Government of the Republic of Slovenia and the Government of the Republic of Croatia on the regulation of status and other legal relations connected to investment in NEK, its exploitation and decommissioning, and the Memorandum of Association, both of which entered into force on 11 March 2003, NEK is organised as a limited liability company or l.l.c.

The basic capital of NEK is divided into two equal shares owned by the partners GEN energija l.l.c. Ljubljana and Hrvatska Elektropriveda p.l.c., Zagreb. NEK produces and supplies electricity exclusively in favour of the two partners, who each have the right and obligation to use 50% of its total output.

Comment **# 14747: About KRSKO NPP (http://www.nek.si)**

NEK has been in operation for twenty-five years. Projected life-time is until 2023. Over the course of the operational years NEK have witnessed a great many social changes and technological upgrades which have affected their work.

If twenty-five years ago their main aim was adapting to high professional and technical standards of nuclear technology, today the impact of market forces and public acceptability are equally important. If twenty-five years ago they were not yet considering the need to exchange domestic and international operational experience, today this is part of their everyday routine.

All of those changes, and in particular people's increased environmental awareness, are reflected in their everyday operation and in NEK's long-term strategy. They are reflected in the high level of nuclear safety. They guarantee, in the stability and competitiveness of their electricity production in comparison to other energy sources and, last but not least, in their objectives of achieving NEK's public acceptability.

Over the course of twenty-five years they have formed a qualified team which is strongly committed to their goals and to the values of safety culture. On the basis of know-how, continuous training, safe operation and operating efficiency, they are realizing an optimistic vision of the second half of NEK's lifecycle.

Attachment **#1418: Site**

NEK_Annual_Report_2004.pdf

NEK annual report 2004

Attachment **#1419: Site**

NEK_Annual_Report_2005.pdf

NEK annual report 2005

Attachment **#1420: Site**

NEK_Annual_Report_2006.pdf

NEK annual report 2006

Attachment **#1592: Site**

NEK_Annual_Report_2007.pdf

NEK annual report 2007

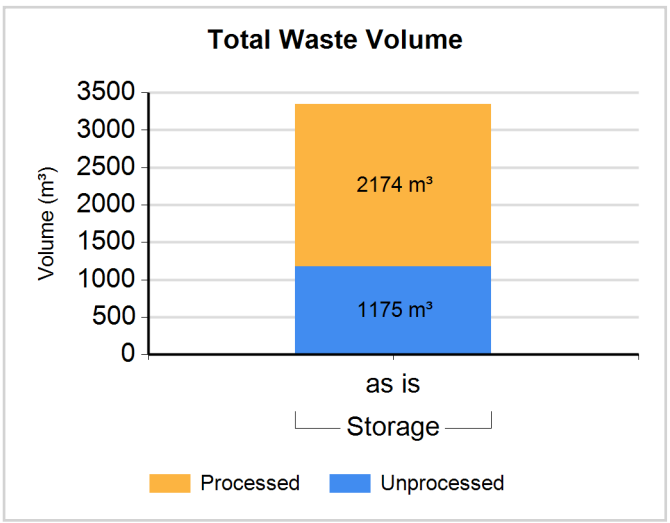
Site (Data) : KRSKO NPP

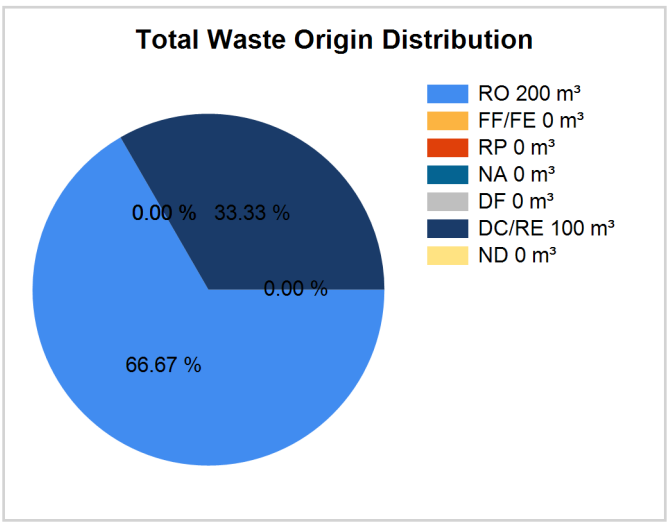
Stock of waste as at December 2007

Country: SLOVENIA Reporting Year: 2007

Waste Inventory

Est=distribution is an estimate, Proc.=Is the waste processed (Yes/No)? RO=Reactor Operations, FF/FE=Fuel Fabrication/Fuel Enrichment, RP=Reprocessing, NA=Nuclear Applications,DF=Defence, DC/RE=Decommissioning/Remediation, ND=Not Determined





Note: where volume "as dispo" is provided, volume "as is" is used in the graph instead.

Waste Class: LLW

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
LLW	Storage	N	Y	1051.000	1051.000	0.00	0.00	0.00	0.00	0.00	100.00	0.00
LLW	Storage	Y	N	2174.000	2174.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00

Waste Class: HLW

Data available but will not be reported.

Site (Data) : KRSKO NPP

Stock of waste as at December 2007

Country: SLOVENIA Reporting Year: 2007

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction	N	N	Same	N
Decontamination	N	N	Same	N
Evaporation	N	N	Same	N
Filtration	N	N	Same	N
Incineration	N	N	Increase	N
Ion Exchange	N	N	Same	N
Metal Melting	N	N	Increase	N
Segregation/Sorting	N	N	Same	N
Size Reduction	N	N	Increase	N
Super Compaction	N	N	Increase	N
Thermal Treatment (non incineration)	N	N	Increase	N

Comment **# 7628: Incineration**

NPP Krsko does not have own incineration facility.
Drums with combustible waste were sent for incineration in Studsvick. There were three incineration campaigns, the first took place in 1998, the second in 2002 and the third in 2005.

Comment **# 7629: Management of low and intermediate level waste**

Krsko NPP have performed periodical volume reductions with compression, supercompaction, incineration, and melting. From the year 1995 NPP used in-drum drying system (IDDS) for drying of evaporators concentrate and spent ion exchange resins. Because the working capacity of the existing IDDS system is insufficient for drying backlog sludges and sediments, the Krsko NPP hired a mobile IDDS unit, which in the 36 Annual Report 2007 on the Radiation and Nuclear Safety in the Republic of Slovenia year 2007 performed the drying of 97 drums of sludges and sediments and reduced the volume of waste to 15 drums. In 2006 the Krško NPP started continuous compression of radioactive waste with their own super-compactor installed in the storage facility. In the year 2007 there were 1,101 standard drums with compressible wastes, other wastes and evaporators concentrate compressed.
Secondary waste sent for incineration and melting in October 2005 to Studsvik in Sweden was returned to the Krsko NPP in December 2006 and stored in the radwaste storage facility in 2007. 149 standard drums which will be sent for incineration and melting in Sweden, are temporarily kept in the multipurpose building (decontamination facility).

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization	N	N		Y
Cementation	N	N	Decrease	N
Containerization	N	N	Same	N
Solidification	N	N	Increase	N

Site (Structure) : LILW Rep.

Country: SLOVENIA Reporting Year: 2007

Full Name: Planned repository for LILW

Description:

Official Website:

License Holder(s): future facility, not licensed

Comment **# 7599: The location of disposal of LILW**

The final location of disposal of LILW has not been selected yet. According to the plans, the repository siting should be concluded by 2008 and repository constructed by 2013.

Waste management facilities that are located at this site:

Site (Structure) : LILW Rep.

Country: SLOVENIA Reporting Year: 2007

Facility:	**LILW Rep.**
Description:	planned LILW near-surface repository

Disposal part of facility **LILW Rep.**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
VLLW	No	No
LLW	No	Yes
ILW	No	No
HLW	No	No

List SRS?	No
List UMMT?	No

Type:	engineered near surface		
Facility is modular?	No		
Capacity existing (m3):	0	Capacity planned (m3):	20000

Depth (m):		Host medium:	unknown (site not selected)

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1995	2004	True
site selection	2003	2008	True
design	2005	2008	True
construction	2009	2010	True
commissioning	2010	2011	True
operation	2011	2038	True
closure	2038		True
institutional control		2338	True

Regulators

Country: SLOVENIA Reporting Year: 2007

Name:	**SNSA**
Full Name:	Slovenian Nuclear Safety Administration
Divison:	Division of Nuclear and Radioactive Materials Divison of Inspection Control
City or Town:	Ljubljana
Main Website:	

Comment **# 7597: SNSA**

Slovenian Nuclear Safety Administration
Zelezna cesta 16
P.O. Box 5759
SI - 1001 Ljubljana
Slovenia
Phone: +386 1 472 11 00
Fax: +386 1 472 11 99
E-mail: SNSA@gov.si
Web site: http://www.ursjv.gov.si/

Attachment **#996: Regulator**

SNSA_AnnualReport_2003.pdf

SNSA Annual Report 2003

Attachment **#1217: Regulator**

SNSA_AnnualReport_2004.pdf

SNSA Annual Report 2004

Attachment **#1218: Regulator**

SNSA AnnualReport 2005.pdf

SNSA Annual Report 2005

Attachment **#1416: Regulator**

SNSA_AnnualReport_2006.pdf

SNSA Annual Report 2006

Attachment **#1590: Regulator**

SNSA_AnnualReport_2007.pdf

SNSA Annual Report 2007

Regulators

Country: SLOVENIA Reporting Year: 2007

Name:	**SRPA**
Full Name:	Slovenian Radiation Protection Administration
Divison:	Area of radiation practices and use of radiation sources in health and veterinary care
City or Town:	Ljubljana
Main Website:	

Comment **# 9720: Regulator SRPA**

Slovenian Radiation Protection Administration
Ajdovscina 4
SI-1000 Ljubljana
Slovenia
Phone: +386 1 478 87 09
Fax: +386 1 478 87 15

The 2002 Act gives the competence in the area of radiation practices and use of radioactive sources in heath and veterinary care to the Slovenian Radiation Protection Administration (SRPA), which was established in March 2003 within the Ministry of Health.

The SRPA performs technical, administrative, inspection and development tasks in the area of radiation practices and use of radiation sources in health and veterinary care; health protection of people against detrimental effect of ionising radiation; systematic inspection of working and living premises due to exposure of people to the natural radiation sources; implementation of monitoring of radioactive contamination of foodstuffs and drinking water; reduction, restriction and prevention of health detrimental effects of non-ionising radiation and assessment of compliance and authorization of radiation protection experts. In the scope of radiation protection the SRPA issues the approvals to evaluation of the protection of the exposed workers of the radiation and extend the radiation risks for exposed workers at given work places.

Attachment **#1591: Regulator**

SRPA_Annualreport_2006.pdf

Annual Report on the Radiation Protection and Nuclear Safety in Slovenia 2006

Regulations / Laws

Country: SLOVENIA Reporting Year: 2007

Name:	**ZVISJV**	
Title or Name:	ACT ON IONISING RADIATION PROTECTION AND NUCLEAR SAFETY with amendments	
Reference Number:	Off. Gaz. RS, 67/2002	
Date Promulgated or Proclaimed:	10/1/2002	Law

Comment **# 7595: ZVISJV with amendments**

In July 2002 the Parliament of the Republic of Slovenia adopted a new Act on Ionising Radiation Protection and Nuclear Safety (Off. Gaz. RS, 67/2002 - hereinafter referred to as “2002 Act”).

As defined in the first Article of this act, its main purpose is “to regulate ionising radiation protection, with the aim of reducing the detrimental effects on health and reducing to the lowest possible level radioactive contamination of the environment due to ionising radiation resulting from the use of radiation sources, while at the same time enabling the development, production and use of radiation sources and performing radiation practices”. It also regulates radioactive waste and spent fuel management.

An Act amending the 2002 Act was adopted on 25 February 2003. It provides that the Slovenian Government shall prepare an amended National Program for the Protection of the Environment as regards radioactive waste and spent fuel management by the end of 2004 and submit it to the Parliament for adoption. The site for a low- and intermediate-level waste repository must be approved by 2008 and licensed for operation by 2013.

New amendments of the 2002 Act were adopted on 29 April 2004. The amendments were introduced to reflect the fact that from 1 May 2004 Slovenia is a Member State of the European Union. The aim of this last revision was mainly to harmonise the provisions of the act with the European Union’s legal requirements, especially in the area of shipment of radioactive waste and sources.

The 2002 Act also provides that the regulations which have been issued on the basis of the previous 1984 and 1980 Acts shall apply until new regulations, which are to be adopted pursuant to provisions of the 2002 Act, are issued.

Based on the 2002 Act, twelve decrees and regulations have been issued (Appendix II). All other decrees and regulations are expected to be adopted and issued in 2004 and early 2005.

Attachment **#864: Regulation**

ACT_ON_IONISING_RADIATION_PROTECTION_AND_NUCLEAR_SAFETY.pdf

ACT ON IONISING RADIATION PROTECTION AND NUCLEAR SAFETY
Unofficial translation of the original in Slovene language published in Official Gazette of Republic of Slovenia, no. 67/2002

Name:	**Z-3**	
Title or Name:	Regulation Z-3 "On mode of collecting, accounting, processing, storing, final disposal and release of radioactive waste into the environment", - Derogation of Articles 31.,32. in 33.èlena. -> UV1: Decree on practices involving radiation - Derogation of all articles except Article 20 (in use until 27.5.2007). -> JV7: Regulation on radioactive waste and spent fuel management	
Reference Number:	Official Gazette SFRY, 40/86	
Date Promulgated or Proclaimed:	7/18/1986	Regulation

Attachment **#865: Regulation**

Regulatory Z-3.pdf

Regulation Z-3 "On mode of collecting, accounting, processing, storing, final disposal and release of radioactive waste into the environment"

Regulations / Laws

Country: SLOVENIA Reporting Year: 2007

Name:	**E-1**	
Title or Name:	Regulation E-1 'On siting, construction, commissioning, start-up and exploitation of nuclear facilities' (with appendix on QA)	
Reference Number:	Off. Gaz., SFRY, No. 52/88	
Date Promulgated or Proclaimed:	8/26/1988	Regulation

Name:	**UV3**	
Title or Name:	Decree on the Areas of Limited Use of Land Due to Nuclear Facility and on Conditions for Construction in such Areas - UV3	
Reference Number:	Off. Gaz: RS, 36/2004	
Date Promulgated or Proclaimed:	4/28/2004	Regulation

Name:	**UV8**	
Title or Name:	Decree on the Criteria for Determining the Amount of Compensation Due to the Limited Use of Land in the Area of Nuclear Facility - UV8	
Reference Number:	Off. Gaz. RS, 134/2003	
Date Promulgated or Proclaimed:	12/31/2003	Regulation

Name:	**ARAO est.**	
Title or Name:	Decree on Establishment of a Public Agency for Radwaste Management	
Reference Number:	Off. Gaz. RS, 5/91, 45/96, 32/99, 38/2001)	
Date Promulgated or Proclaimed:	2/9/1991	Regulation

Name:	**Public S.**	
Title or Name:	Decree on Mode and Conditions of Discharging the Public Service on Radioactive Waste Management	
Reference Number:	Off. Gaz. RS, 32/99, 41/04	
Date Promulgated or Proclaimed:	5/21/1999	Regulation

Name:	**JV11**	
Title or Name:	Regulation on inputs from and outputs in the EU member states and on import and export of radioactive waste	
Reference Number:	Official Gazette RS, 60/2004	
Date Promulgated or Proclaimed:	6/3/2004	Regulation

Regulations / Laws

Country: SLOVENIA Reporting Year: 2007

Name:	**FV1**	
Title or Name:	Regulation on physical protection of nuclear materials, nuclear facilities and radiation facilities	
Reference Number:	Official Gazette RS, 31/2005	
Date Promulgated or Proclaimed:	3/25/2005	Regulation

Name:	**ZSFR-UPB1**	
Title or Name:	Act on Fund for Financing Decommissioning of the Krško Nuclear Power Plant and Disposal of Radioactive Waste from the Krško NPP	
Reference Number:	Official Gazette RS, No. 47/2003	
Date Promulgated or Proclaimed:	5/22/2003	Law

Name:	**BHRNEK**	
Title or Name:	Act Ratifying the Treaty between the Government of the Rep.of Slovenia and the government of the Rep.of Croatia on the regulation of the status and other legal relations regarding investment, exploitation and decommissioning of the Krsko NPP and Joint Declaration at the time of signature of the Treaty between the Gov. of the Rep. of Slovenia and the gov. of the Rep. of Croatia on the regulation of the status and other legal relations regarding invest., exploit. and decom. of the Krsko NPP	
Reference Number:	Official Gazette RS-MP, No. 23/2003	
Date Promulgated or Proclaimed:	3/6/2003	Law

Name:	**UV2**	
Title or Name:	Decree on dose limits, radioactive contamination and intervention levels	
Reference Number:	Official Gazette RS, 49/2004	
Date Promulgated or Proclaimed:	4/30/2004	Regulation

Name:	**JV7**	
Title or Name:	Regulation on radioactive waste and spent fuel management	
Reference Number:	Official Gazette RS, 49/2006	
Date Promulgated or Proclaimed:	6/1/2006	Regulation

Regulations / Laws

Country: SLOVENIA Reporting Year: 2007

Name:	**UV1**	
Title or Name:	Decree on practices involving radiation - UV1	
Reference Number:	Official Gazette RS, 48/2004	
Date Promulgated or Proclaimed:	4/30/2004	Regulation

Name:	**UV11**	
Title or Name:	Decree on checking the radioactivity for shipments of metal scrap	
Reference Number:	Official Gazette RS, 84/2007	
Date Promulgated or Proclaimed:	9/18/2007	Regulation

Milestones

Country: SLOVENIA Reporting Year: 2007

Start Year or Reference Year:	2007	End Year:	
Description of Milestone:			
Proposal of the national spatial plan for the LILW repository at the potential location of Vrbina in the municipality of Krsko was prepared and submitted for public hearing required by the national legislation.			

Start Year or Reference Year:	2006	End Year:	
Description of Milestone:			
Regarding the procedure for siting the LILW repository two potential sites (locations) remained. On the potential sites site characterization investigation works have started.			

Start Year or Reference Year:	2005	End Year:	
Description of Milestone:			
In November 2005 three sites (locations) for the LILW repository in volunteering local communities were confirmed by the Government.			

Start Year or Reference Year:	2005	End Year:	
Description of Milestone:			
In October 2005 the National programme for radioactive waste management was adopted by the Government and in February 2006 a resolution on National Programme on radioactive waste and spent fuel management passed also the Parliamentary procedure.			

Start Year or Reference Year:	2004	End Year:	
Description of Milestone:			
In November 2004 the Ministry of the Environment and Spatial Planning officially started the spatial planning procedure as part of site selection process, aiming at developing the National detailed site development plan for LILW.			

Start Year or Reference Year:	2004	End Year:	
Description of Milestone:			
On the basis of the Detailed Plan of National Importance for the LILW Repository, ARAO Agency at the end of the year 2004 invited all Slovenian local communities to cooperate in environmental setting of the LILW repository.			

Start Year or Reference Year:	2004	End Year:	
Description of Milestone:			
In accordance with the provisions of the Treaty between the Government of the Republic of Slovenia and Republic of Croatia on regulation of status and other legal relationships relating to investments into the Krsko nuclear power plant, the Slovenian and Croatian government adopted the first revision of the Program of NPP Krsko decommissioning, SF and LILW disposal.			

Milestones

Country: SLOVENIA Reporting Year: 2007

Start Year or Reference Year:	2003	End Year:	
Description of Milestone:			
On 7 March 2003 the Agreement between the Governments of the Republic of Slovenia and the Republic of Croatia on the status and other legal issues related to investments, exploitation and decommissioning of the Nuclear Power Plant Krško entered into force (it was signed on 19 December 2001).			

Start Year or Reference Year:	2002	End Year:	
Description of Milestone:			
In July 2002 the Parliament of the Republic of Slovenia adopted a new Act on Ionising Radiation Protection and Nuclear Safety. The Act entered into force on 1 October 2002. Its main purpose is “to regulate ionising radiation protection, with the aim of reducing the detrimental effects on health and reducing to the lowest possible level radioactive contamination of the environment due to ionising radiation resulting from the use of radiation sources, while at the same time enabling the development, production and use of radiation sources and performing radiation practices”. It also regulates radioactive waste and spent fuel management.			

Start Year or Reference Year:	1994	End Year:	
Description of Milestone:			
The Act on the Fund for financing Decommissioning of the Krsko NPP and disposal of Radioactive Waste from the Krsko NPP was adopted in the end of year 1994. By this act was established The Financial Fund for Decommissioning of Nuclear Power Plant Krsko.			

Start Year or Reference Year:	1991	End Year:	
Description of Milestone:			
The Agency for Radwaste Management is founded by the Government of Slovenia as a public eneterprise, responsible for final disposal of radioactive waste.			

Start Year or Reference Year:	1987	End Year:	
Description of Milestone:			
The Slovenian Nuclear Safety Administration (SNSA) was established in 1987. SNSA is competent in the area of nuclear safety and radioactive waste management. Previously, the functions of the regulatory body were held by the Committee of Energy and Industry.			

Start Year or Reference Year:	1986	End Year:	
Description of Milestone:			
The Central Storage Facility for Radioactive Waste in Brinje was put into operation in 1986. It is intended for storage of low and intermediate level radioactive waste arising from medical, industrial and research applications. The storage facility is situated at the Research Reactor Centre, about 15 km north-east of Ljubljana.			

Milestones

Country: SLOVENIA Reporting Year: 2007

Start Year or Reference Year:	1984	End Year:	
Description of Milestone:			
In year 1984 entered into force one of the most important act "Act on Radiation Protection and the Safe Use of Nuclear Energy" (Off. Gaz. SFRY, No. 62/84).			

Start Year or Reference Year:	1983	End Year:	
Description of Milestone:			
The Krsko NPP began with commercial operation in January 1983.			

Start Year or Reference Year:	1974	End Year:	
Description of Milestone:			
The Krsko NPP construction was started. It is a Westinghouse two-loop pressurised water reactor. It initial power was 632 MWe.			

Start Year or Reference Year:	1966	End Year:	
Description of Milestone:			
The Research Reactor TRIGA Mark II is operated by Josef Stefan Institute. It was put into operation in May 1966. The reactor was delivered by General Atomics, the reactor tank and body were built by Slovenian companies. Main purpose of the research reactor is research, training and isotopes production.			

Policies

Country: SLOVENIA Reporting Year: 2007

National Systems

Policy		(Yes;Partially;No)
Q14	Has your Country implemented a national policy for radioactive waste management?	Yes

Comment **# 7612: National Radwaste management programme**

In October 2005 the National programme for radioactive waste management was adopted by the Government and in February 2006 a resolution on National Programme on radioactive waste and spent fuel management passed also the Parliamentary procedure.

The document covers the managements of waste from all possible sources of radioactive waste. Besides the waste from the NPP it also includes institutional radioactive waste and waste from past mining activities as well as NORM and TENORM. It covered the period of 10 years. It is planned to upgrade this comprehensive programme by the implementation programmes on different aspects of waste management and start their implementation.

Comment **# 7613: The Fund for Financing the Decommissioning of NPP**

The Fund for Financing the Decommissioning of the Krsko NPP and for the disposal of its radioactive waste was established by the Act on the Fund for Financing Decommissioning of the Krsko NPP and Disposal of Radioactive Waste from Krsko NPP (Off.Gaz. RS, No.75/94, 35/96). The Fund would be collect finances from the contributions of each produced kWh at the plant. However, due to the unresolved legal and ownership status of Krsko NPP, required funds are only partially collected.

Strategies		(Yes;Partially;No)
Q15	Has your country developed strategies to implement a national policy?	Partially

Comment **# 14754: Operational programmes for radwaste management**

Operational programmes for radwaste and spent fuel management were prepared and have been in adoptional process.

Requirements		(Yes;Partially;No)
Q17	identified the parties involved in the different steps of radioactive waste management	Yes
Q18	specified a rational set of safety, radiological and environmental protection objectives	Yes
Q19	implemented a mechanism to identify existing and anticipated radioactive wastes	Yes
Q20	implemented controls over radioactive waste generation	Yes
Q21	identified available methods and facilities to process, store and dispose of radioactive waste on an appropriate time-scale	Yes
Q22	taken into account interdependencies among all steps in radioactive waste generation and management	Yes
Q23	implemented appropriate research and development to support the operational and regulatory needs	Yes
Q24	implemented a funding structure and the allocation of resources that are essential for radioactive waste management	Yes
Q25	implemented formal mechanisms for disseminating information to the public and for public consultation	Yes

Policies

Country: SLOVENIA Reporting Year: 2007

	Responsibilities	(Complete;Incomplete)
Q28	establish and implement a legal framework for the management of radioactive waste	Complete
Q29	establish or designate a regulatory body that has the responsibility for carrying out the regulatory function with regard to safety and the protection of human health and the environment.	Complete
Q30	define the responsibilities of waste generators and operators of waste management facilities	Complete
Q31	provide for adequate resources	Complete
Q33	enforce compliance with regulatory requirements	Complete
Q34	implement the licensing process	Complete
Q35	advise the government	Complete
Q37	identify an acceptable destination for the radioactive waste	Complete
Q114	comply with legal requirements	Complete

	Activities	(Yes;Partially;No)
Q43	perform safety and environmental impact assessments for radioactive waste management facilities	Yes
Q44	ensure adequate radiation protection for workers, the general public and the environment	Yes
Q45	ensure suitable staff, equipment, facilities, training and operating procedures are available to perform the safe radioactive waste management steps	Yes
Q46	establish and implement a quality assurance programme for the radioactive waste generated or its processing, storage and disposal	Yes
Q47	establish and keep records of appropriate information regarding the generation, processing, storage and disposal of radioactive waste, including an inventory of radioactive waste	Yes
Q48	provide surveillance and control of activities involving radioactive waste as required by the regulatory body	Yes
Q49	collect, analyze and, as appropriate, share operational experience to ensure continued safety improvements in radioactive waste management	Yes
Q50	conduct or otherwise ensure appropriate research and development to support operational needs in radioactive waste management	Yes

	Clearance	(Yes;No)
Q128	Does your country have "clearly defined clearance levels based on radiological criteria, with policy statements that material below those levels can be recycled or disposed of with non-radioactive wastes"?	Yes
Q129	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	Yes
Q130	Has your country ever used clearance levels to dispose of, reuse or recycle radioactive waste as non-radioactive waste or as a non-radioactive resource (excluding spent/disused sealed radioactive sources)?	No

Policies

Country: SLOVENIA Reporting Year: 2007

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
Q53	Environmental Assessment (EA)	Yes - All
Q54	Environmental Impact Statement (EIS)	Yes - All
Q55	Performance Assessment (PA)	Yes - All
Q56	Quality Assurance (QA)	Yes - All
Q57	Safety Assessment (SA)	Yes - All
Q59	If Quality Assurance is part of your Country's current, waste disposal facility licensing policy, does the QA Program conform to international standards (such as the ISO9000 series)?	Yes - All

	Operation	(Yes - All;Yes - Some;No)
Q60	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some

Comment **# 7614: Preliminary waste AC for future LILW**

Slovenia has preliminary waste acceptance criteria for future LILW repository (generic location).

	Post-Closure	(Yes;No)
Q61	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
Q63	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	Yes
Q65	access restrictions	Yes
Q66	drainage and/or leachate collection system(s)	Yes
Q67	leachate treatment systems	Yes
Q68	environmental monitoring	Yes
Q69	facility monitoring	Yes
Q70	surveillance	Yes
Q71	plans for intervention measures during active institutional control if there is an unplanned release of radioactive materials from the disposal facility	Yes

Policies

Country: SLOVENIA Reporting Year: 2007

Processing/Storage

	Policies/Procedures	(Yes;No)
Q73	waste sorting/segregation	Yes
Q74	waste minimization	Yes
Q75	waste storage	Yes
Q76	processing and/or storing and/or disposing of nuclear fuel cycle waste separately from non-nuclear fuel cycle waste (also known as nuclear applications waste)	No
Q78	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	No

Comment **# 7615: Procedures**

Operators have developed their own procedures. They are not written on National level.

Processing and storing - nuclear fuel cycle waste separately from non-nuclear fuel cycle waste.
Disposing - according to the waste type (LILW, SF, LILW LL etc.) and not according to the waste orgin (from nuclear fuel cycle or non-nuclear fuel cycle).

	Implementation	(Yes;No)
Q80	In your Country are there any waste processing facilities at the same location where the waste is generated?	Yes
Q81	In your Country are there any centralized waste processing facilities?	Yes
Q82	In your Country are there any mobile waste processing facilities?	No

	Foreign	(Yes;No)
Q121	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	Yes
Q122	Will some or all of the product(s) of processing/reprocessing be returned to your country?	Yes
Q123	Currently, are any of your country's wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	No
Q124	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Policies

Country: SLOVENIA Reporting Year: 2007

Spent/Disused SRS

	Registration	(Yes;No)
Q84	Is there a national level registry?	Yes
Q85	If answer was yes, is the registry used only for disused/spent SRS?	No
Q87	Are there regional-level registries (one or more)?	No
Q90	Are there local-level registries (one or more)?	No

	Procedures	(Yes;No)
Q91	Does your Country have documented procedures in place to ensure that sealed radioactive sources (SRS) are transferred to secure facilities in a timely manner after their user declares them to be spent?	Yes

	Agreements	(Yes;No)
Q93	Government to Government agreements	No
Q94	Government - Supplier agreements	No
Q95	Supplier-User agreements	Yes
Q97	Do any agreements include suppliers that are outside of your Country?	Yes

	Release / Disposal	(Yes;No)
Q99	Does your Country have any regulations to free-release spent sealed radioactive sources (SRS)?	Yes
Q100	Has your Country disposed of spent SRS in existing disposal facilities for LILW or HLW waste?	No
Q101	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	Yes
Q102	Has your Country implemented dedicated disposal facilities for spent SRS?	No
Q103	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	No

Import-Export

Radioactive Waste		(Yes;No)
Q104	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	No

Comment **# 7639: Comment**

There are certain requirements by other mechanisms.

Spent Fuel		(Yes;No)
Q105	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Comment **# 7640: There are limitations by other mechanisms.**

Liquid HLW

Storage		(Yes;No)
Q106	Does your Country have high-level liquid wastes in storage?	No

UMMT

Responsibility		(Yes;No)
Q110	Does your Country have any Uranium Mine and Mill Tailings sites that do not have a designated authority to manage them?	No

Policies

Country: SLOVENIA Reporting Year: 2007

Decommissioning

	Funding	(Yes - All;Yes - Some;No)
Q111	Does your Country require that funds should be set aside in support of future waste management activities, such as decommissioning activities?	Yes - All

	Facilities	(Yes;No)
Q119	Does Your Country have any nuclear fuel cycle facilities?	Yes
Q120	Does Your Country have any nuclear applications facilities (non fuel cycle facilities)?	Yes

	Timeframe	(Yes - All;Yes - Some;No)
Q112	Does your Country require a time frame for the decommissioning of nuclear fuel cycle facilities once these facilities cease operation?	Yes - Some
Q113	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Future Outlook

Country: SLOVENIA Reporting Year: 2007

Data not available.

Future Outlook

Country: SLOVENIA Reporting Year: 2007

Data not available.

Future Outlook

Country: SLOVENIA Reporting Year: 2007

Data not available.

Future Outlook

Country: SLOVENIA Reporting Year: 2007

Data not available.

Future Outlook

Country: SLOVENIA Reporting Year: 2007

Data not available.

Future Outlook

Country: SLOVENIA Reporting Year: 2007

Data not available.

Future Outlook

Country: SLOVENIA Reporting Year: 2007

Data not available.

Future Outlook

Country: SLOVENIA Reporting Year: 2007

Data not available.