



Country Waste Profile Report for CZECH REPUBLIC Reporting Year: 2013

*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: CZECH REPUBLIC

Reporting Year: 2013

Waste Class Matrix: **IAEA Def.**

This country does use the IAEA Scheme: No

Description: The Agency's standard matrix

Waste Class Name	Distribution %			
	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

Waste Class Matrix: **cz-eu**

Yes

Description: The new waste classes scheme as showed below has to be ignored. Current waste classification is based on the IAEA Safety Guide 111-G-1.1:

TRW - >Temporary waste, whose activity after 5 years storage does not exceed the clearance levels.

LILW-SL > Low and intermediate-level waste-short-lived contains radionuclides with half-life shorter than 30 years

LILW-LL -> Low and intermediate-level waste long-lived exceeds limits for LILW-SL

HLW-> High-level waste waste for which heat generation from r

Waste Class Name	Distribution %			
	VLLW	LLW	ILW	HLW
TRW	0.0	100.0	0.0	0.0
LILW-SL	0.0	100.0	0.0	0.0
LILW-LL	0.0	0.0	100.0	0.0
HLW	0.0	0.0	0.0	100.0

Comment **# 7186: Waste classification**

Solid radioactive waste shall be classified into three basic categories, namely temporary, low-level and intermediate-level, and high-level wastes.

Temporary radioactive waste shall be such waste whose radioactivity after long-term storage (maximum 5 years) does not exceed the clearance levels.

High-level radioactive waste shall be waste for which heat generation from radionuclide decay of the radionuclides contained must be taken into account during its storage and disposal.

Other radioactive waste shall be classified as low and intermediate-level waste. Low and intermediate-level waste is classified into two subcategories. The first subcategory is short-lived waste, in which the half-life of radionuclides contained is shorter than 30 years (including Cs-137) with a limited mass activity of long-lived alpha emitters (in individual packages a maximum of 4000 kBq/kg, and a mean value of 400 kBq/kg in the total volume of waste produced in a calendar year). The other subcategory is long-lived waste, that is waste not ranking in the short-lived radioactive waste subcategory.

Comment **# 25754: Waste classification vs. GSG-1**

Current waste classification is based on the IAEA Safety Guide 111-G-1.1. At present time there is no need to use recent GSG-1 and therefore the reference scheme is the valid one. As a simple recalculation between the new and old waste classification scheme is not possible the new waste classes scheme has to be ignored.

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

Waste Classification Schemes

Country: CZECH REPUBLIC

Reporting Year: 2013

This country uses the IAEA standard definition:

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

Groups Overview

Country: CZECH REPUBLIC

Reporting Year: 2013

Reporting Group:	Institutes			
Inventory Reporting Date:	December 2013			
Waste Matrix Used:	cz-eu			
Description:	Research institutes, radiochemical laboratories, industrial facilities etc.			
Site Name	Facility Name	Facilities Defined		
ISOTREND	Hall	processing	storage	
UJP Praha	Hall I	processing		
	RAW store		storage	
UJV Rez	Cerv.skala		storage	
	Prekladist		storage	
	Sklad VAO		storage	
	VZ	processing	storage	
VF	TC	processing	storage	
	UJP	processing	storage	
ZAM-SERVIS	SRS	processing		
Comment	# 7078: Additional information predisposal radioactive waste management, electrical and electronical devices installation and maintenance			

Reporting Group:	NPPs			
Inventory Reporting Date:	December 2013			
Waste Matrix Used:	cz-eu			
Description:	Nuclear power plants			
Site Name	Facility Name	Facilities Defined		
EDU	BAPP	processing	storage	
	SVO	processing		
	ZRAO	processing		
ETE	BAPP	processing	storage	

Groups Overview

Country: CZECH REPUBLIC

Reporting Year: 2013

Reporting Group:	SURAO
Inventory Reporting Date:	December 2013
Waste Matrix Used:	CZ-EU
Description:	Radioactive Waste Repository Authority

Site Name	Facility Name	Facilities Defined	
Bratrstvi	URAO B		disposal
Dukovany	URAO D		disposal
Hostim	URAO H		disposal
Richard	URAO R	storage	disposal

Comment # 359: Status and activities of SURAO

To provide for activities associated with radioactive waste disposal, the Ministry of Industry and Trade set up a Radioactive Waste Repositories Authority (hereinafter referred to as "SURAO") as a State organisation. The Authority shall carry out particular activities in radioactive waste management based on a licence under Atomic Act (Act No. 18/1997).

The SURAO shall engage in the following activities

- a) preparation, construction, commissioning, operation and closure of radioactive waste repositories and monitoring of their impact on the environment;
- b) radioactive waste management;
- c) conditioning of spent or irradiated nuclear fuel into a form suitable for its disposal or further utilisation;
- d) keeping records of radioactive waste receipts and their generators;
- e) administration of payments to the nuclear account;
- f) drafting of proposals for determination of payments to the nuclear account;
- g) provision for and co-ordination of research and development in the field of radioactive waste management;
- h) monitoring of reserves of licensees for decommissioning of their installations;
- i) provision of services in the field of radioactive waste management;
- j) management of radioactive waste transported to the territory of the Czech Republic from abroad when it is not possible to return it;
- k) provision of temporary administration in the case of radioactive waste that, under a specific Act, has become State property; if these are items that were found, left or hidden, the Authority is entitled also to accept them, instead of a State body determined by a specific Act.

Reporting Group:	Total
Inventory Reporting Date:	December 2013
Waste Matrix Used:	CZ-EU
Description:	

Site Name	Facility Name	Facilities Defined	
NT	ND		disposal
	NS	storage	

Site (Structure) : ISOTREND

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: ISOTREND s.r.o.

Description:

Official Website:

License Holder(s): ISOTREND s.r.o.

Comment **# 395: Activity**

Assembly, checks, maintenance and distribution of radionuclide sources, predisposal operation in radioactive waste management

Waste management facilities that are located at this site:

Site (Structure) : ISOTREND

Country: CZECH REPUBLIC

Reporting Year: 2013

Facility:	Hall
Description:	Waste treatment and conditioning facility

Storage part of facility **Hall**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	Yes	No
LILW-LL	Yes	No
HLW	No	No

List SRS?	No
List UMMT?	No

Capacity:	
------------------	--

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
Hall	building	1981	No	No	No	No

Processing part of facility **Hall**

The following shows processing status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	No	No
LILW-LL	No	No
HLW	No	No

Type:	Treatment, Conditioning
Year opened:	1981

Comment **# 14563: Processing Facility Hall**

The facility is in operation since 1981 (Institute for Research, Production and Utilisation of Radioisotopes) and from 1992 is a part of newly established Isotrend company.

Site (Data) : ISOTREND

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: ISOTREND

Full Name: ISOTREND s.r.o.

Inventory Reporting Date: December 2013

Waste Matrix Used: cz-eu

Comment **# 395: Activity**

Assembly, checks, maintenance and distribution of radionuclide sources, predisposal operation in radioactive waste management

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination	N	N	Decrease	N
Size Reduction	N	N	Decrease	N

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	N	N	Decrease	N
Encapsulation	N	N	Decrease	N

Site (Structure) : UJP Praha

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: UJP Praha a. s.

Description:

Official Website:

License Holder(s): UJP Praha a. s.

Waste management facilities that are located at this site:

Facility:	Hall I		
Description:	Waste management equipment is placed in Hall I.		
Processing part of facility Hall I			
The following shows processing status for waste classes and SRS.			
Waste Class	Actual	Planned	
TRW	No	No	
LILW-SL	Yes	Yes	
LILW-LL	Yes	Yes	
HLW	No	No	
Type:	Conditioning		
Year opened:	1973		
Comment	# 14558: Processing Facility Hall I		
The licensee performs according to the valid SUJB license collection, segregation, conditioning and storage of waste.			

Site (Structure) : UJP Praha

Country: CZECH REPUBLIC

Reporting Year: 2013

Facility:	RAW store					
Description:	Storage facility for the temporary storage of waste before handling over to disposal (SURAO)					
Storage part of facility			RAW store			
The following shows storage status for waste classes and SRS.						
Waste Class	Actual	Planned				
TRW	No	No				
LILW-SL	No	No				
LILW-LL	Yes	Yes				
HLW	No	No				
List SRS?	No					
List UMMT?	No					
Capacity:						
Types of Storage Units						
Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
RAW store	building	1966	No	No	No	No

Site (Data) : UJP Praha

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: UJP Praha

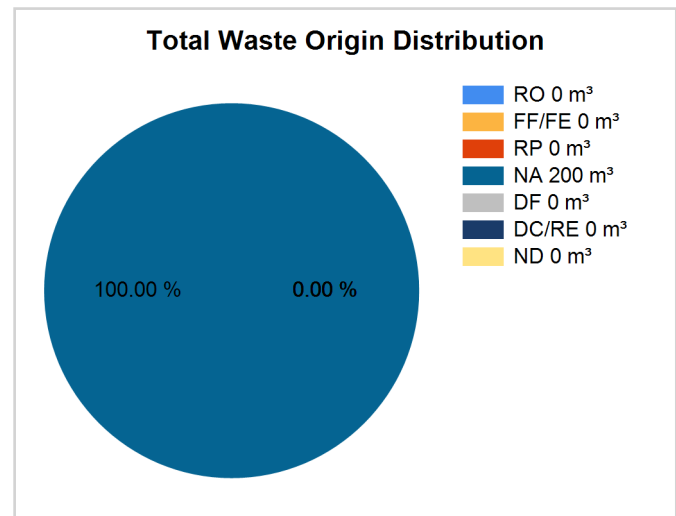
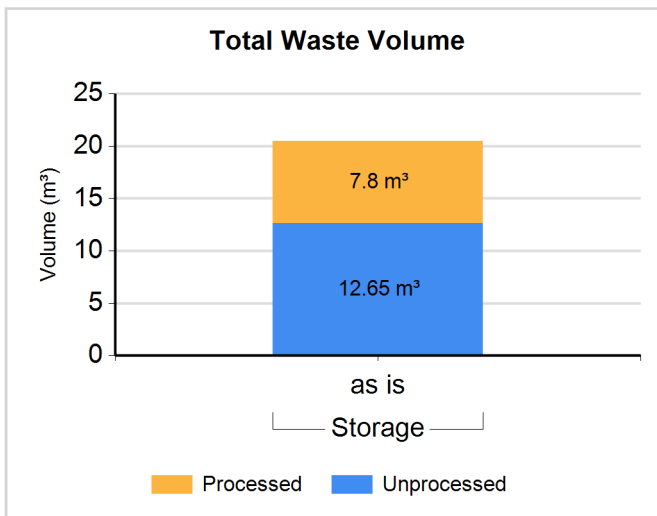
Full Name: UJP Praha a. s.

Inventory Reporting Date: December 2013

Waste Matrix Used: cz-eu

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: LILW-LL

Data available but will not be reported.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	N	N	Increase	N

Comment # 14562: Waste conditioning on Site UJP Praha

Waste is collected in 100 l drums which are then placed into 200 l drums backfilled with concrete. There is a surface isolation layer on the top of the concrete matrix.

Site (Structure) : UJV Rez

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: UJV Rez a.s.
(Nuclear Research Institute Rez)

Description:

Official Website:

License Holder(s): UJV Rez a.s.
CZ-250 68 Rez

Comment # 25757: **Additional storage capacities**

There are two more small storage facilities in UJV Raz a. s. Both are used for the storage of operational liquid RAW. One of them, in building No. 250 (Radiochemie) consists of 7 steel tanks with max. volume of 7 x 10 m³, max. operational volume 7 x 8 m³, containing 15,1 m³ of RAW (2011). The second one in building No. 211/3 (Male zbytky) is a 63 m³ tank with max. operational volume of 35 m³ and containing 12,0 m³ of RAW (2011).

Waste management facilities that are located at this site:

Facility:	Cerv.skala																					
Description:	Waste storage facility (Cervena Skala - Red Rock)																					
<p>Storage part of facility Cerv.skala</p> <p>The following shows storage status for waste classes and SRS.</p> <table border="1"> <thead> <tr> <th>Waste Class</th> <th>Actual</th> <th>Planned</th> </tr> </thead> <tbody> <tr> <td>TRW</td> <td>No</td> <td>No</td> </tr> <tr> <td>LILW-SL</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>LILW-LL</td> <td>No</td> <td>No</td> </tr> <tr> <td>HLW</td> <td>No</td> <td>No</td> </tr> </tbody> </table>		Waste Class	Actual	Planned	TRW	No	No	LILW-SL	Yes	Yes	LILW-LL	No	No	HLW	No	No						
Waste Class	Actual	Planned																				
TRW	No	No																				
LILW-SL	Yes	Yes																				
LILW-LL	No	No																				
HLW	No	No																				
List SRS?	No																					
List UMMT?	No																					
Capacity:	Storage facility can accommodate max. 6 ISO containers with RAW and 100 m ³ of solid RAW (technological parts). Total activity - max. 10 GBq.																					
<p>Types of Storage Units</p> <table border="1"> <thead> <tr> <th>Storage Unit Name</th> <th>Type Name</th> <th>Year Opened</th> <th>Closed?</th> <th>Full?</th> <th>Modular?</th> <th>Contains SRS?</th> </tr> </thead> <tbody> <tr> <td>Cerv.skala</td> <td>container (ISO)</td> <td>1988</td> <td>No</td> <td>Yes</td> <td>No</td> <td>No</td> </tr> <tr> <td>Cerv.skala</td> <td>concrete pad</td> <td>1988</td> <td>No</td> <td>Yes</td> <td>No</td> <td>No</td> </tr> </tbody> </table>		Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?	Cerv.skala	container (ISO)	1988	No	Yes	No	No	Cerv.skala	concrete pad	1988	No	Yes	No	No
Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?																
Cerv.skala	container (ISO)	1988	No	Yes	No	No																
Cerv.skala	concrete pad	1988	No	Yes	No	No																

Site (Structure) : UJV Rez

Country: CZECH REPUBLIC

Reporting Year: 2013

Facility:	Prekladist					
Description:	Waste storage facility (Prekladiste - Reloading facility)					
Storage part of facility		Prekladist				
The following shows storage status for waste classes and SRS.						
Waste Class	Actual	Planned				
TRW	No	No				
LILW-SL	Yes	Yes				
LILW-LL	Yes	Yes				
HLW	No	No				
List SRS?	No					
List UMMT?	No					
Capacity:	Unprocessed waste - max. 800 m3 and 5000 GBq Processed waste - max. 600 m3					
Types of Storage Units						
Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
Prekladist	building	1963	No	No	No	Yes

Site (Structure) : UJV Rez

Country: CZECH REPUBLIC

Reporting Year: 2013

Facility:	Sklad VAO
Description:	HLW store (Sklad VAO) - facility for storage of spent fuel and LILW with activity exceeding WAC for operating repositories

Storage part of facility**Sklad VAO**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	Yes	Yes
LILW-LL	Yes	Yes
HLW	No	Yes

List SRS?	No
List UMMT?	No

Capacity:	
------------------	--

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
Sklad VAO	building	1995	No	No	Yes	Yes

Site (Structure) : UJV Rez

Country: CZECH REPUBLIC

Reporting Year: 2013

Facility:	VZ
Description:	Velke Zbytky: Waste storage, treatment and conditioning plant

Storage part of facility VZ

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	Yes	Yes
LILW-SL	Yes	Yes
LILW-LL	Yes	Yes
HLW	No	No

List SRS?	Yes
List UMMT?	No

Capacity:	Solid unprocessed RAW (LILW-LL, LILW-SL): 23 m3 TRW: 160 m3 Conditioned RAW (LILW-LL, LILW-SL, SRS): 130 pc. of 200/216 L drums (26 m3) Liquid RAW (storage tanks): 123 m3 Liquid RAW (storage containers): 3 m3 SRS: Sum activity limitation
------------------	---

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
No. 1,2...	tank (stainless steel)	1963	No	No	No	No
St. rooms	building	1963	No	No	No	Yes
No. 29, 30	tank (stainless steel)	1963	No	No	No	No

Processing part of facility VZ

The following shows processing status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	Yes	Yes
LILW-SL	Yes	Yes
LILW-LL	Yes	Yes
HLW	No	No

Type:	Treatment, Conditioning
Year opened:	1962

Site (Data) : UJV Rez

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: UJV RezFull Name: UJV Rez a.s.
(Nuclear Research Institute Rez)

Inventory Reporting Date: December 2013

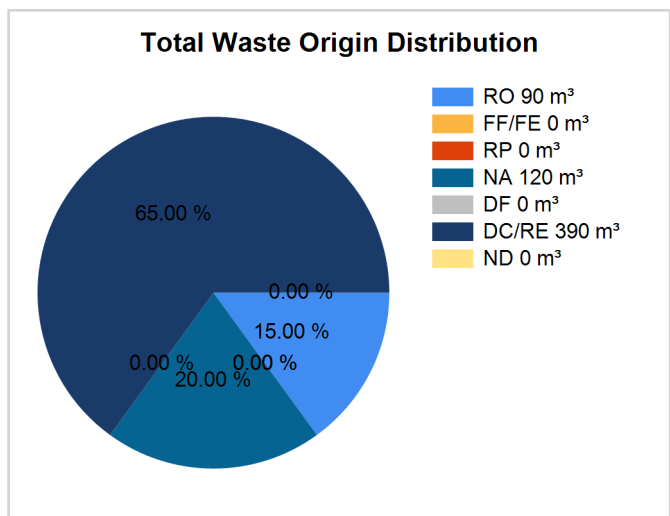
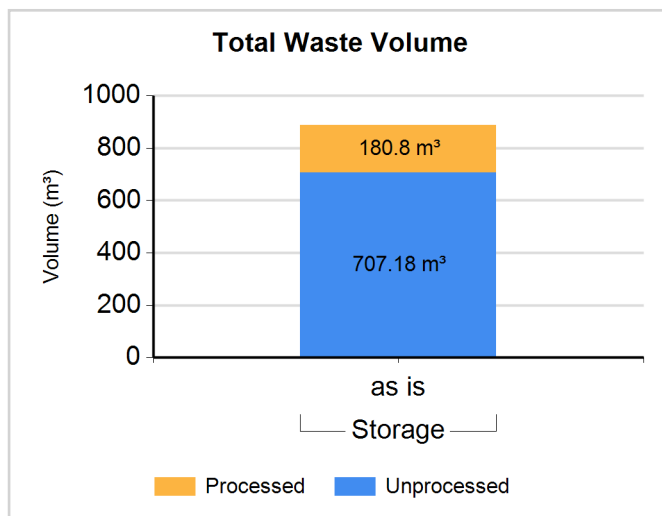
Waste Matrix Used: cz-eu

Comment # 25757: Additional storage capacities

There are two more small storage facilities in UJV Rez a. s. Both are used for the storage of operational liquid RAW. One of them, in building No. 250 (Radiochemie) consists of 7 steel tanks with max. volume of 7 x 10 m³, max. operational volume 7 x 8 m³, containing 15,1 m³ of RAW (2011). The second one in building No. 211/3 (Male zbytky) is a 63 m³ tank with max. operational volume of 35 m³ and containing 12,0 m³ of RAW (2011).

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: LILW-SL

Data available but will not be reported.

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Calcination	N	Y		N
Decontamination	N	Y	Same	N
Evaporation	N	N	Same	N
Radionuclide Separation	N	Y		N
Shredding and Compaction	N	N	Same	N
Solvent Extraction	N	Y		N

Site (Data) : UJV Rez

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Processing - Conditioning method(s)

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

RadioNuclide Inventory in Storage

Total Alpha Activity (GBq):	10.5
Total Beta/Gamma Activity (GBq):	0

RadioNuclide	Activity (GBq)
Carbon (C-14)	1.296
Cesium (Cs-137)	1.6065
Chlorine (Cl-36)	0
Hydrogen (H-3)	2.6
Iodine (I-129)	0
Strontium (Sr-90)	11.292
Technetium (Tc-99)	0

Comment **# 26894: Inventory details**

The inventory details contain information on total activity of stored solid RAW placed in VZ facility. The total activity of RAW in Prekladist. is estimated to be 110 GBq and 3 TBq of SRS, in Cerv.skala 6 GBq and in Sklad VAO 1,3 GBq.

Site (Structure) : VF

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: VF, a. s.

Description:

Official Website:

License Holder(s): VF, a. s.

Waste management facilities that are located at this site:

Facility:	TC
Description:	Technological centre VF, a.s., Svitavská 588, Cerná Hora

Storage part of facility TC

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	No	No
LILW-LL	No	No
HLW	No	No

List SRS?	No
List UMMT?	No

Capacity:	Storage facility for the temporary storage of SRS and LILW-LL before handling over to disposal (SURAO).
------------------	---

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
Store	building	2006	No	No	No	Yes

Site (Structure) : VF

Country: CZECH REPUBLIC

Reporting Year: 2013

Processing part of facility TC

The following shows processing status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	No	No
LILW-LL	Yes	No
HLW	No	No

Type:	Treatment, Conditioning
Year opened:	2006

Site (Structure) : VF

Country: CZECH REPUBLIC

Reporting Year: 2013

Facility:	UJP
Description:	Working place of III. category at UJP PRAHA a.s.

Storage part of facility UJP

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	No	No
LILW-LL	No	No
HLW	No	No

List SRS?	No
List UMMT?	No

Capacity:	Storage facility for the temporary storage of SRS before handling over to disposal (SUJB)
-----------	---

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
Store	building	2004	No	No	No	Yes

Processing part of facility UJP

The following shows processing status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	No	No
LILW-LL	No	No
HLW	No	No

Type:	Treatment, Conditioning
Year opened:	2004

Site (Data) : VF

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: VF

Full Name: VF, a. s.

Inventory Reporting Date: December 2013

Waste Matrix Used: cz-eu

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Evaporation	Y	N		N

Comment **# 14559: Waste Treatment on Site VF**

SRSs are removed from the encapsulation or equipment and then after decontamination are these structures treated as non-radioactive waste. SRSs are conditioned and after short technological storage handed over to SURAO and disposed.

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	N	N	Decrease	N

Comment **# 14560: Waste conditioning on Site VF**

SRSs are placed into 210 l drums backfilled with concrete.

Site (Structure) : ZAM-SERVIS

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: ZAM-SERVIS s.r.o.

Description:

Official Website:

License Holder(s): ZAM-SERVIS s.r.o.

Comment # 7184: additional information

Electrical and electrical devices installation and maintenance works, predisposal radioactive waste management

Waste management facilities that are located at this site:

Facility:	SRS		
Description:			
Processing part of facility	SRS		
The following shows processing status for waste classes and SRS.			
Waste Class	Actual	Planned	
TRW	No	No	
LILW-SL	Yes	Yes	
LILW-LL	Yes	Yes	
HLW	No	No	
Type:	Conditioning		
Year opened:	1997		

Site (Data) : ZAM-SERVIS

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: ZAM-SERVIS

Full Name: ZAM-SERVIS s.r.o.

Inventory Reporting Date: December 2013 Waste Matrix Used: cz-eu

Comment # 7184: additional information

Electrical and electronical devices installation and maintenance works, predisposal radioactive waste management

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	N	N	Same	N

Site (Structure) : EDU

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: JE Dukovany

Description:

Official Website:

License Holder(s): CEZ a.s

Comment # 391: NPP Dukovany

4 PWR of VVER-440-V213 type are installed. Total electrical output is 1760 MW. Physical startup of the 1 unit was in february 1985. Full commercial operation of all units started in January 1988.
NPP is situated 35 km to the SW of the City of Brno.

Waste management facilities that are located at this site:

Facility:	BAPP
Description:	Auxiliary building containing waste processing and storage facilities

Storage part of facility BAPP

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	Yes	Yes
LILW-LL	No	No
HLW	No	No

List SRS?	No
List UMMT?	No

Capacity:	Storage capacity (OLCs): - solid RAW - 800 t - liquid RAW - 4000 m3 - resins - 460 m3
------------------	--

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
TW	tank (stainless steel)	1985	No	No	No	No
Box	bunker	1985	No	No	No	No
Mog	well	1985	No	No	No	No

Site (Structure) : EDU

Country: CZECH REPUBLIC

Reporting Year: 2013

Processing part of facility **BAPP**

The following shows processing status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	Yes	Yes
LILW-LL	No	No
HLW	No	No

Type:	Treatment
Year opened:	1985

Site (Structure) : EDU

Country: CZECH REPUBLIC

Reporting Year: 2013

Facility:	SVO															
Description:	Liquid Waste Treatment Systems															
Processing part of facility SVO																
The following shows processing status for waste classes and SRS.																
<table border="1"><thead><tr><th>Waste Class</th><th>Actual</th><th>Planned</th></tr></thead><tbody><tr><td>TRW</td><td>No</td><td>No</td></tr><tr><td>LILW-SL</td><td>Yes</td><td>Yes</td></tr><tr><td>LILW-LL</td><td>No</td><td>No</td></tr><tr><td>HLW</td><td>No</td><td>No</td></tr></tbody></table>	Waste Class	Actual	Planned	TRW	No	No	LILW-SL	Yes	Yes	LILW-LL	No	No	HLW	No	No	
Waste Class	Actual	Planned														
TRW	No	No														
LILW-SL	Yes	Yes														
LILW-LL	No	No														
HLW	No	No														
Type:	Treatment															
Year opened:	1985															

Site (Structure) : EDU

Country: CZECH REPUBLIC

Reporting Year: 2013

Facility:	ZRAO															
Description:	Bituminisation unit - conditioning of liquid radioactive waste															
Processing part of facility ZRAO																
The following shows processing status for waste classes and SRS.																
<table border="1"><thead><tr><th>Waste Class</th><th>Actual</th><th>Planned</th></tr></thead><tbody><tr><td>TRW</td><td>No</td><td>No</td></tr><tr><td>LILW-SL</td><td>Yes</td><td>Yes</td></tr><tr><td>LILW-LL</td><td>No</td><td>No</td></tr><tr><td>HLW</td><td>No</td><td>No</td></tr></tbody></table>	Waste Class	Actual	Planned	TRW	No	No	LILW-SL	Yes	Yes	LILW-LL	No	No	HLW	No	No	
Waste Class	Actual	Planned														
TRW	No	No														
LILW-SL	Yes	Yes														
LILW-LL	No	No														
HLW	No	No														
Type:	Conditioning															
Year opened:	1994															

Site (Data) : EDU

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: EDU

Full Name: JE Dukovany

Inventory Reporting Date: December 2013

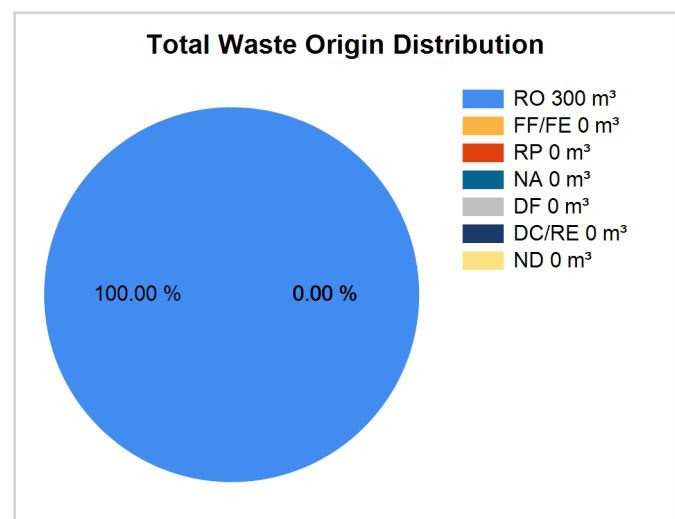
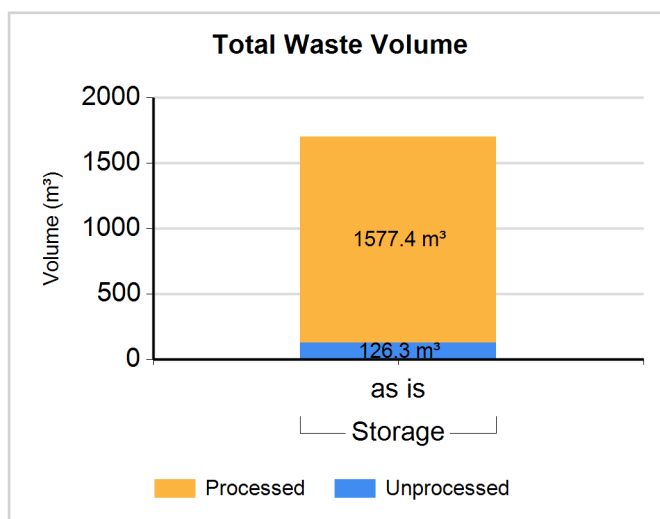
Waste Matrix Used: cz-eu

Comment # 391: NPP Dukovany

4 PWR of VVER-440-V213 type are installed. Total electrical output is 1760 MW. Physical startup of the 1 unit was in february 1985. Full commercial operation of all units started in January 1988. NPP is situated 35 km to the SW of the City of Brno.

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: LILW-SL

Data available but will not be reported.

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
Evaporation	N	N	Same	N
Incineration	N	N	Increase	N
Ion Exchange	N	N	Same	N
Solvent Extraction	N	N	Increase	N
Super Compaction	N	N		N

Site (Data) : EDU

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization	N	N	Increase	N
Polymerization	N	N	Increase	N

RadioNuclide Inventory in Storage

RadioNuclide	Activity (GBq)
Americium (Am-241)	0.0082
Calcium (Ca-41)	0.0121
Carbon (C-14)	6.67
Cesium (Cs-137)	141
Cobalt (Co-60)	14.7
Iodine (I-129)	0.22
Nickel (Ni-59)	0.593
Nickel (Ni-63)	39.2
Niobium (Nb-94)	0.0575
Plutonium (Pu-239)	0.0027
Strontium (Sr-90)	5.19
Technetium (Tc-99)	0.086

Comment **# 25758: Origin of summary data**

Radioactivity of radionuclides limited by OLC + Co-60 is calculated as a sum of radioactivity of all solid and liquid RAW stored at the premises of NPP Dukovany. The radioactivity of RAW stored at a batch storage facility ZRAO is not considered, as the storage facility is used only for a limited time period, just before the transport of conditioned RAW to disposal facility and due to the limited activity of stored RAW.

Site (Structure) : ETE

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: JE Temelin

Description:

Official Website:

License Holder(s): CEZ a.s.

Comment **# 390: NPP Temelin**

The Temelín NPP is the largest power station in the Czech Republic. 2 PWR reactors of the VVER-1000-320 type are installed with capacity of 2000 MW.

The NPP station is situated approximately 24 km north of the City of Ceske Budejovice.

The site preparation started in 1983. In 1990, the government of the CSFR decided to cease the construction on the 3rd and 4th units. Finally, in March 1993, the government of the CR decided that the 1st and 2nd VVER 1000 units should be completed only. However, the modifications and alterations further postponed the commissioning of the power station. Unit 1 was critical in October 2000. The trial operation of the Unit 1 started in July 2002. The Unit 2 was critical in May 2002. The trial operation of the Unit 2 started in April 2003.

Waste management facilities that are located at this site:

Site (Structure) : ETE

Country: CZECH REPUBLIC

Reporting Year: 2013

Facility:	BAPP					
Description:	Auxiliary building containing waste processing and storage facilities Bituminisation unit - conditioning of liquid radioactive waste					
Storage part of facility BAPP						
The following shows storage status for waste classes and SRS.						
Waste Class	Actual	Planned				
TRW	No	No				
LILW-SL	Yes	Yes				
LILW-LL	No	No				
HLW	No	No				
List SRS?	No					
List UMMT?	No					
Capacity:	Storage capacity (OLCs): - solid RAW - 500 t - liquid RAW - 520 m3 - resins - 200 m3					
Types of Storage Units						
Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
Box	bunker	2000	No	No	No	No
Mog	well	2000	No	No	No	No
TW	tank (stainless steel)	2000	No	No	No	No
Processing part of facility BAPP						
The following shows processing status for waste classes and SRS.						
Waste Class	Actual	Planned				
TRW	No	No				
LILW-SL	Yes	Yes				
LILW-LL	No	No				
HLW	No	No				
Type:	Treatment, Conditioning					
Year opened:	2000					

Site (Data) : ETE

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: ETE

Full Name: JE Temelin

Inventory Reporting Date: December 2013

Waste Matrix Used: cz-eu

Comment # 390: NPP Temelin

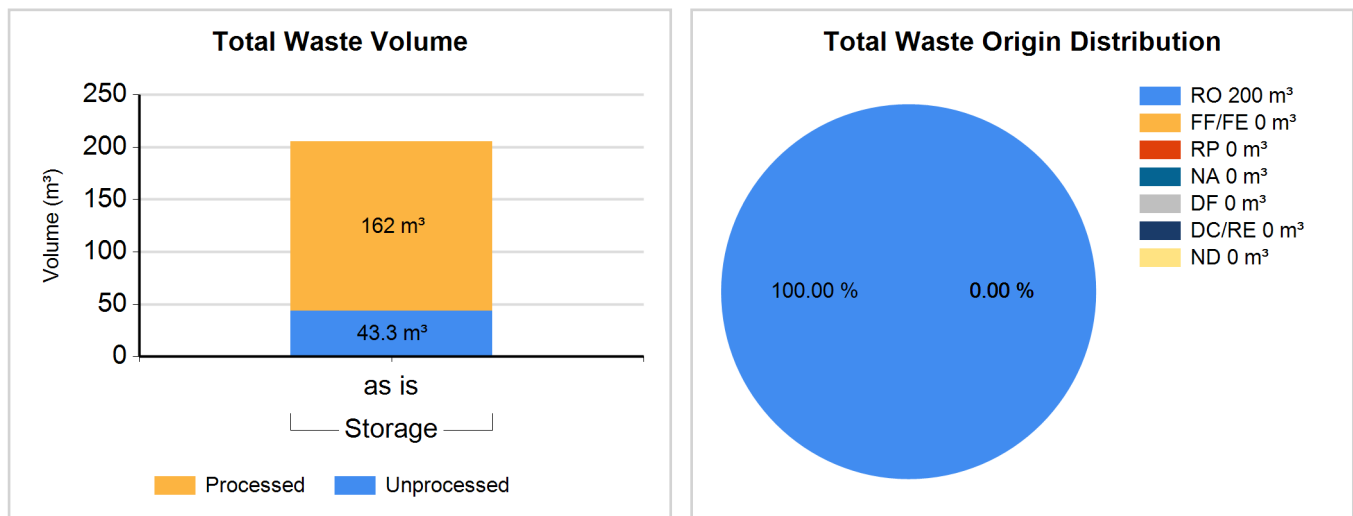
The Temelín NPP is the largest power station in the Czech Republic. 2 PWR reactors of the VVER-1000-320 type are installed with capacity of 2000 MW.

The NPP station is situated approximately 24 km north of the City of Ceske Budejovice.

The site preparation started in 1983. In 1990, the government of the CSFR decided to cease the construction on the 3rd and 4th units. Finally, in March 1993, the government of the CR decided that the 1st and 2nd VVER 1000 units should be completed only. However, the modifications and alterations further postponed the commissioning of the power station. Unit 1 was critical in October 2000. The trial operation of the Unit 1 started in July 2002. The Unit 2 was critical in May 2002. The trial operation of the Unit 2 started in April 2003.

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: LILW-SL

Data available but will not be reported.

Site (Data) : ETE

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Compaction	N	N	Increase	N
Evaporation	N	N	Increase	N
Incineration	N	N	Increase	N
Ion Exchange	N	N	Increase	N
Super Compaction	N	N		N

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Bituminization	N	N	Increase	N
Polymerization	N	N	Increase	N

RadioNuclide Inventory in Storage

RadioNuclide	Activity (GBq)
Americium (Am-241)	0.0079
Calcium (Ca-41)	0.0912
Carbon (C-14)	0.359
Cesium (Cs-137)	49.9
Cobalt (Co-60)	13.7
Iodine (I-129)	0.00106
Nickel (Ni-59)	0.0925
Nickel (Ni-63)	22.8
Niobium (Nb-94)	0.12
Plutonium (Pu-239)	0.00358
Strontium (Sr-90)	2.22
Technetium (Tc-99)	0.0249

Comment # 25759: Origin of summary data

Radioactivity of radionuclides limited by OLC + Co-60 is calculated as a sum of radioactivity of all solid and liquid RAW stored at the premises of NPP Temelin. The radioactivity of RAW stored at a batch storage facility in BAPP is considered as well.

Site (Structure) : Bratrstvi

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: URAO Bratrstvi

Description:

Official Website:

License Holder(s): SURAO (Radioactive Waste Repository Authority)

Comment # 388: Information

The Bratrstvi facility was built in an abandoned uranium mine near Jachymov (Joachimsthal). It is used for waste containing natural radionuclides (Ra-226, Pb-210, Uranium and Thorium isotopes).

Waste management facilities that are located at this site:

Facility:	URAO B
Description:	Rock cavity type repository (disused uranium mine)
Detailed Facility Description:	<p>The facility has 5 disposal cavities adapted from former mining shafts; disposal cavities are connected with an access tunnel.</p> <p>Capacity: total volume adapted for the repository is 3 500 m³ (the anticipated storage layer 2 meters may be more in rooms No. 1, 4 and 5)</p> <p>Barriers: not installed at present.</p> <p>There are two factors which are specific for the repository design: (a) high humidity in the underground premises and a substantial flow rate of mine water nearby the disposal chambers, and (b) high concentration of radon decay products (however not generated by the disposed RAW but by natural activity of the host environment) which makes it necessary to maintain a special ventilation regimen.</p>
Waste Packages:	<p>The Bratrstvi repository in Jáchymov is designed to dispose RAW consisting of or contaminated with natural radionuclides of the radium and thorium series. The repository was developed particularly to dispose leaking and disused radioactive sources from healthcare facilities.</p> <p>Radioactive waste is mostly RaSO₄ in platinum cases (medical sources), Ra-Be neutron sources, laboratory waste containing natural radionuclides, depleted uranium and natural thorium (mostly as Th(NO₃)₄·5H₂O a ThO₂).</p> <p>The sources are held in lead containers, placed in concrete and sealed in steel drums. These, together with other wastes, are overpacked into 200 L drums (the inner surfaces of which are painted with asphalt paint) and a 5 cm layer of concrete is poured in to surround the inner drum. The upper face of the concrete layer is again painted with asphalt paint. A general rule for their conditioning in steel drums is given by the requirement that the surface exposure rate must be less than 1 mSvh-1.</p>
Facility Operation:	<p>The drums are kept in mine galleries. After the galleries are filled, it is proposed to close them with brick walls and backfill with concrete to resist any changes caused by the pressure of the upper rock formations. However, it is expected that in the future these galleries may be reopened and some waste retrieved from the repository. The radioactivity in the underground water and air are monitored.</p> <p>Scheduled end of operation is in 2030; it is anticipated that disposal rooms and access tunnels will be filled with a mixture based on bentonites or cement. Institutional control is anticipated for a period of 300 years after the operation is terminated.</p>

Site (Structure) : Bratrstvi

Country: CZECH REPUBLIC

Reporting Year: 2013

Financing:	Activities are financed from the nuclear account which collects payments by radioactive waste producers; the nuclear account is administered by the Ministry of Finance.
------------	--

Disposal part of facility**URAO B**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	No	No
LILW-LL	Yes	No
HLW	No	No

List SRS?	Yes
List UMMT?	No

Type:	rock cavern		
Facility is modular?	No		
Capacity existing (m3):	1200	Capacity planned (m3):	1200

Depth (m):	30-60	Host medium:	crystalline rock (gneiss)
------------	-------	--------------	---------------------------

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1970	0	False
site selection		1971	False
design	1971	0	False
construction	1972	1973	False
commissioning	1974	0	False
operation	1974	2030	False
closure	2030	0	True

Site (Structure) : Bratrstvi

Country: CZECH REPUBLIC

Reporting Year: 2013

Comment # 7197: Total volume of repository

The volume of the facility is about 3500 m3 including transport corridors. Reviews of historical records and documents were done during 1999-2003.

Comment # 14552: Disposal Facility URAO B

From the total volume of 3500 m3 of only 1200 m3 can be used for disposal of RAW. At the end of 2004 about 880 m3 of RAW (73.3% from available disposal volume) were disposed

Comment # 14553: Disposal Facility URAO B

At the end of 2006 about 955 m3 of RAW (79.6% from available disposal volume) were disposed

Site (Data) : Bratrstvi

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: Bratrstvi

Full Name: URAO Bratrstvi

Inventory Reporting Date: December 2013

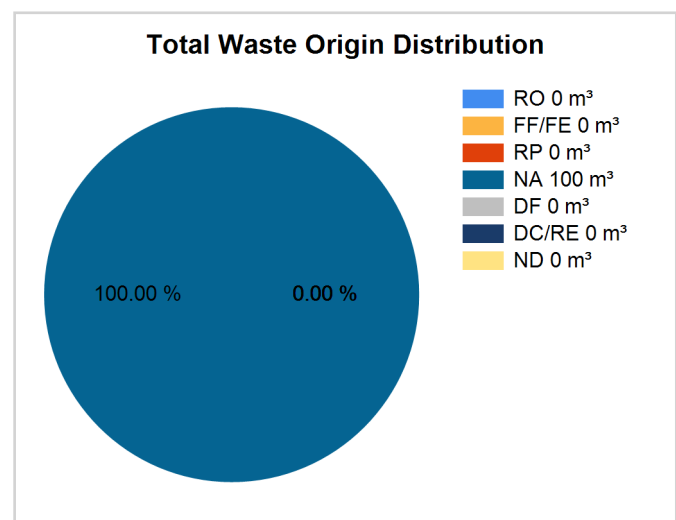
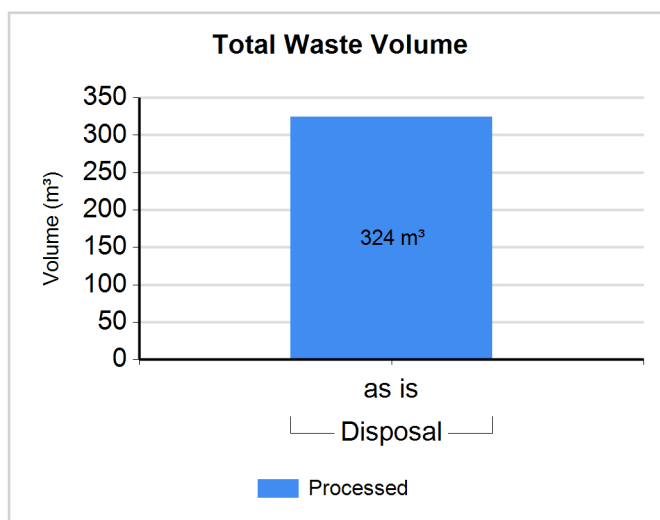
Waste Matrix Used: cz-eu

Comment # 388: Information

The Bratrstvi facility was built in an abandoned uranium mine near Jachymov (Joachimsthal). It is used for waste containing natural radionuclides (Ra-226, Pb-210, Uranium and Thorium isotopes).

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: LILW-LL

Data available but will not be reported.

Spent Sources <=30 years in Disposition

Nuclide	Number of Sources/Total Activity of Sources (GBq)			c o n d	u n c o n d	c a t	Total Activity for all Groups (GBq)	Decay Date
	Group I less than or equal 4GBq	Group II more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num/activity	num/activity	num/activity					
Pb-210	7 6.590E-001			Y	N	Y	6.590E-001	2012.12

Comment # 25755: Ra-226 sources

As NEWMDB does not include in the list of nuclides Ra-226 these sources are reported separately. At the end of 2011 193 Ra-226 sources of cat. I, with total activity of 56,54 GBq and one source of cat. II, with activity of 7,268 GBq were disposed in the facility.

Site (Data) : Bratrstvi

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Spent Sources > 30 years in Disposition

Nuclide	Number of Sources/Total Activity of Sources (GBq)		c o n d	u n c o n d	c a t	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					
Ra-226	193	2	Y	N	Y	7.450E+001	2012.12
	5.690E+001	1.760E+001					

RadioNuclide Inventory in Disposal

Total Alpha Activity (GBq):	1880
Total Beta/Gamma Activity (GBq):	0

RadioNuclide	Activity (GBq)
Radium (Ra-226)	1350
Thorium (Th-232)	0.137
Uranium (U-238)	495

Site (Structure) : Dukovany

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: URAO Dukovany

Description:

Official Website:

License Holder(s): Previously owned and operated by the power generation company CEZ,plc., on Jan 1st 2000 transferred under the management of the state organization - the Radioactive Waste Repository Authority (RAWRA | SURAO).

Comment # 381: Information

The Dukovany repository (URAO) serves for radioactive waste from operation of Czech NPP. It does not accept waste from research, industry and medicine or spent sealed sources. The accepted waste corresponds to the IAEA LLW-SL waste class.

Comment # 14554: Site Dukovany

Since 2006 repository can accommodate unprocessed institutional waste and operational waste immobilised not only in bitumene, glas and cement, but also in aluminosilicate matrix.

Comment # 26992: Radionuclide Inventory

The main radionuclides in the waste are Co-60, Cs-134 and Cs-137. Transuranic radionuclides, such as Pu-238/239 and Am-241, are below 1 Bq/l. The other long lived radionuclides, such as C-14, Sr-90 and Tc-99, are in the range of 0.1 – 8 kBq/l

Comment # 26993: Institutional Framework

The Radioactive Waste Repository Authority's mission is to ensure safe disposal of existing and future radioactive waste (RAW) in the Czech Republic and to safeguard the requirements for the protection of human health and the environment from the adverse impacts of such waste. RAWRA works in active and open co-operation with the local communities and municipalities in the vicinity of which repositories are located, as well as with the general public represented by non-governmental environmental organizations, civic associations, etc. RAWRA provides the general public with objective and complete information concerning its activities and intentions.

Waste management facilities that are located at this site:

Facility:	URAO D
Description:	Near-surface radioactive waste repository for disposal of operational LILW from both NPPs and waste from their decommissioning. Since 2006 also unprocessed RAW of institutional origin can be disposed in the repository.
Detailed Facility Description:	<p>The facility consists of 112 above-ground concrete vaults arranged in two double rows. The single vaults are 17.3 m x 5.3 m x 5.4 m,</p> <p>The geometric volume of the total repository is 55,450 m³ and its barriers are comprised of concrete walls, asphaltpropyleneconcrete (APC) and a clay fill. The bottom are concrete, APC, binder, APC, concrete (Base joint), earth (Macadam) and gravel. The caps are made from prefabricated reinforced concrete slabs, APC, impermeable soil and overburden graded to facilitate drainage.</p> <p>The facility is designed for the disposal of low and intermediate level waste from the Dukovany NPP. The waste is placed in 200 liter drums which are stacked in 4 to 7 layers. Free space between the waste drums is filled with concrete.</p>
Waste Packages:	

Site (Structure) : Dukovany

Country: CZECH REPUBLIC

Reporting Year: 2013

	<p>Most of the liquid and solid waste at Dukovany is immobilized in a bitumen matrix and packaged in 200 l, galvanized steel drums. Some waste is compacted and packaged in steel drums for disposal. Also high-integrity container (HIC) type packages is foreseen.</p> <p>The repository is designed to receive primarily short lived low and intermediate level waste from the Dukovany NPP. The types of waste disposed of at the facility include evaporator concentrates, miscellaneous trash, contaminated solid waste, large-size items from the primary circuit, and spent ion exchange resins.</p> <p>The facility has a capacity of 55,450 m³, corresponding to 180,000 x 200 liter drums. By the end of 2004, the total amount of disposed wastes was 2,830 m³.</p> <p>The waste acceptance criteria for the Dukovany facility are expressed in terms of radionuclide activity limits set on a waste drum, vault and the repository. Mobile activity includes surface contamination of a waste package, leachable activity and non-standa</p>
Facility Operation:	By the end of 2005, 5 vaults of 36 have been filled. Closure plan for the repository is at a conceptual stage. The closure date is around 2100, followed by an institutional control period of ~300 years.
Financing:	Activities are financed from the nuclear account, which collects payments by the radioactive waste producers; the nuclear account is administered by the Ministry of Finance.

Site (Structure) : Dukovany

Country: CZECH REPUBLIC

Reporting Year: 2013

Disposal part of facility**URAO D**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	Yes	No
LILW-LL	Yes	No
HLW	No	No

List SRS?	No
List UMMT?	No

Type:	engineered surface		
Facility is modular?	Yes		
Capacity existing (m3):	55000	Capacity planned (m3):	55000

Depth (m):	5.3	Host medium:	sedimentary (other)
------------	-----	--------------	---------------------

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1976	0	False
site selection		1982	False
design		1986	False
construction	1987	0	False
commissioning		1994	False
operation	1995	0	False
closure	2100	0	True
institutional control	2100	2400	True

Comment **# 9797: Calculation of used repository capacity**

The reported % of existing capacity used is based on the number of vaults filled by RAW in 200 l drums, which was at the end of 2004 about 9,5 vaults (about 8,5% of the volume of the whole repository - 112 vaults).

Comment **# 14557: Disposal Facility URAO D**

At the end of 2006 5579 m³ of waste (11,5 vaults; about 10 % of the volume of the whole repository) was disposed in the repository.

Site (Data) : Dukovany

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: Dukovany

Full Name: URAO Dukovany

Inventory Reporting Date: December 2013

Waste Matrix Used: cz-eu

Comment # 381: Information

The Dukovany repository (URAO) serves for radioactive waste from operation of Czech NPP. It does not accept waste from research, industry and medicine or spent sealed sources. The accepted waste corresponds to the IAEA LLW-SL waste class.

Comment # 14554: Site Dukovany

Since 2006 repository can accommodate unprocessed institutional waste and operational waste immobilised not only in bitumene, glas and cement, but also in aluminosilicate matrix.

Comment # 26992: Radionuclide Inventory

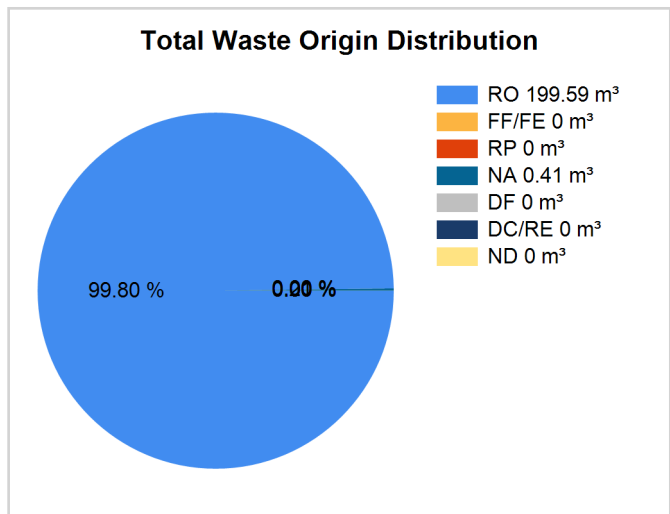
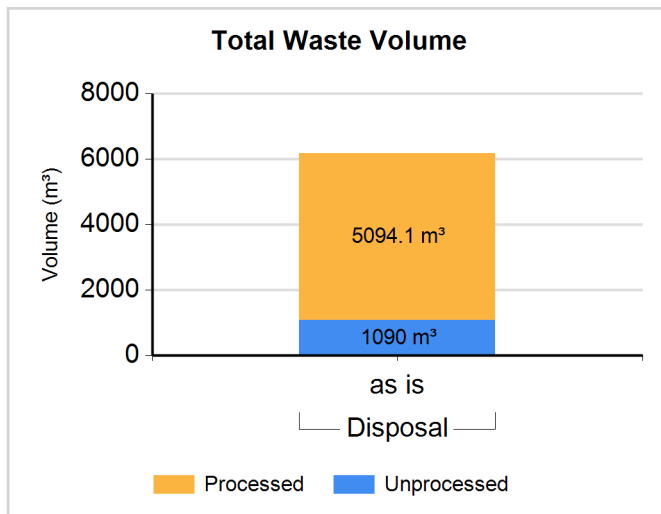
The main radionuclides in the waste are Co-60, Cs-134 and Cs-137. Transuranic radionuclides, such as Pu-238/239 and Am-241, are below 1 Bq/l. The other long lived radionuclides, such as C-14, Sr-90 and Tc-99, are in the range of 0.1 – 8 kBq/l

Comment # 26993: Institutional Framework

The Radioactive Waste Repository Authority's mission is to ensure safe disposal of existing and future radioactive waste (RAW) in the Czech Republic and to safeguard the requirements for the protection of human health and the environment from the adverse impacts of such waste. RAWRA works in active and open co-operation with the local communities and municipalities in the vicinity of which repositories are located, as well as with the general public represented by non-governmental environmental organizations, civic associations, etc. RAWRA provides the general public with objective and complete information concerning its activities and intentions.

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: LILW-SL

Data available but will not be reported.

Site (Data) : Dukovany

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

RadioNuclide Inventory in Disposal

RadioNuclide	Activity (GBq)
Americium (Am-241)	0.568
Calcium (Ca-41)	0.315
Carbon (C-14)	181
Cesium (Cs-137)	8710
Iodine (I-129)	0.552
Nickel (Ni-59)	5.33
Nickel (Ni-63)	666
Niobium (Nb-94)	1.24
Plutonium (Pu-239)	0.126
Strontium (Sr-90)	59.3
Technetium (Tc-99)	1.39

Site (Structure) : Hostim

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: URAO Hostim Disposal Facility

Description:

Official Website:

License Holder(s): SURAO (Radioactive Waste Repository Authority)

Comment # 389: Information

The repository was situated near the City of Beroun. It was constructed in an abandoned limestone mine and put into operation in 1959 for radioactive waste from research, industry and medicine. It was closed in 1965 and most of waste packages were transferred in the Richard repository. The repository was finally filled with concrete and sealed in 1997. The site is monitored.

Comment # 26995: Institutional Framework

The Radioactive Waste Repository Authority's mission is to ensure safe disposal of existing and future radioactive waste (RAW) in the Czech Republic and to safeguard the requirements for the protection of human health and the environment from the adverse impacts of such waste. RAWRA works in active and open co-operation with the local communities and municipalities in the vicinity of which repositories are located, as well as with the general public represented by non-governmental environmental organizations, civic associations, etc. RAWRA provides the general public with objective and complete information concerning its activities and intentions.

Waste management facilities that are located at this site:

Facility:	URAO H
Description:	The repository was used to dispose RAW of institutional origin and has been closed. It is a rock cavity type repository (in a disused mine).
Detailed Facility Description:	<p>The facility consists of two disposal galleries.</p> <p>Dimensions: gallery A 470 m³, gallery B 1,220 m³</p> <p>Barriers: applied following closure by pouring cement and sealing access.</p> <p>The repository was built in 1959 in limestone mine Alkazar by adaptation of two galleries driven in 1942 -1944. These galleries were used for radwaste disposal (see fig.). Gallery A was adapted and used by the Institute of Nuclear Research Rež, Gallery B was used by the Institute for Research, Production and Utilization of Radioisotopes (UVVVR) Prague within the framework of the then established and by the State subsidized system for radioactive waste treatment and disposal.</p>
Waste Packages:	<p>The repository contains low-and intermediate-level wastes from the Nuclear Research Institute at REZ and from the Institute for Research, Production. and Utilization of Radioisotopes.</p> <p>The waste is in the form of boxes, bags, drums and canisters of various types.</p> <p>The capacity of the facility is 1690 m³, with a current waste quantity of 330 m³.</p>
Facility Operation:	

Site (Structure) : Hostim

Country: CZECH REPUBLIC

Reporting Year: 2013

In the Gallery A the radioactive waste was stored free (in tins, glass jars, air-conditioning filters). In the Gallery B the waste was mostly stored in 60 l zinc-plated drums; in addition, some contaminated voluminous equipment was free stored.

To assure safety of the disposed waste (sufficient barrier preventing unauthorized persons from entering), both galleries were filled with a special concrete mixture. Before the filling, inventory was checked and all long-term radionuclide sources and chemical wastes were removed from the repository. In 1990 – 1991, a hydrogeological monitoring system of institutional inspection was developed and operated by RAWRA. Also, a network was established of geodynamic points to measure movements of the rock massif. The monitoring results have proved tightness and safety of the closed repository. The repository has been closed since 1997. Free space in the repository was sealed in 1997 (filled with concrete).

Financing:

Activities are financed from the nuclear account, which collects payments by the radioactive waste producers; the nuclear account is administered by the Ministry of Finance.

Site (Structure) : Hostim

Country: CZECH REPUBLIC

Reporting Year: 2013

Disposal part of facility **URAO H**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	Yes	No
LILW-SL	No	No
LILW-LL	No	No
HLW	No	No

List SRS?	No
List UMMT?	No

Type:	rock cavern (mountain/hill)		
Facility is modular?	No		
Capacity existing (m3):	1690	Capacity planned (m3):	1690

Depth (m):	30	Host medium:	sedimentary (other)
------------	----	--------------	---------------------

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1959	0	False
commissioning		1959	False
operation	1959	1964	False
closure	1965	1997	False
institutional control	1998	0	False

Site (Data) : Hostim

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: Hostim

Full Name: URAO Hostim Disposal Facility

Inventory Reporting Date: December 2013

Waste Matrix Used: cz-eu

Comment # 389: Information

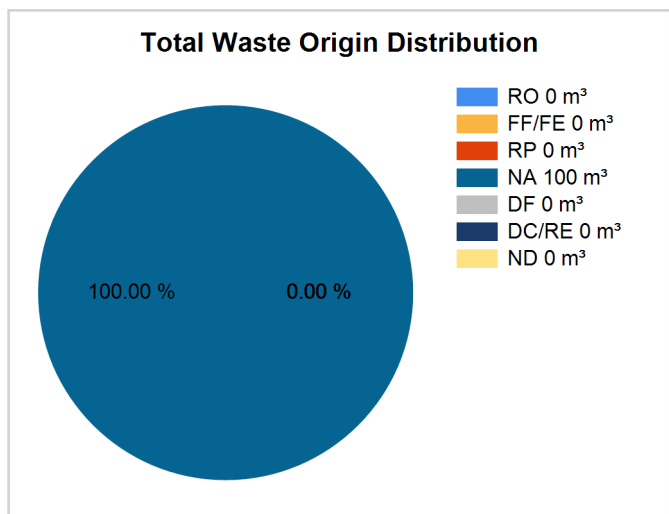
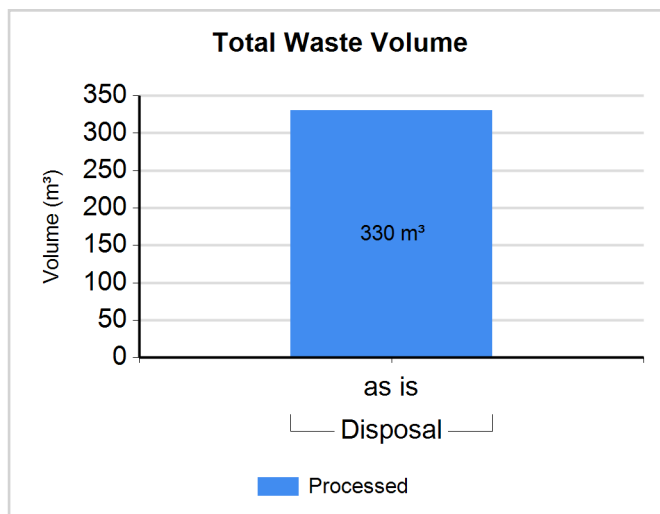
The repository was situated near the City of Beroun. It was constructed in an abandoned limestone mine and put into operation in 1959 for radioactive waste from research, industry and medicine. It was closed in 1965 and most of waste packages were transferred in the Richard repository. The repository was finally filled with concrete and sealed in 1997. The site is monitored.

Comment # 26995: Institutional Framework

The Radioactive Waste Repository Authority's mission is to ensure safe disposal of existing and future radioactive waste (RAW) in the Czech Republic and to safeguard the requirements for the protection of human health and the environment from the adverse impacts of such waste. RAWRA works in active and open co-operation with the local communities and municipalities in the vicinity of which repositories are located, as well as with the general public represented by non-governmental environmental organizations, civic associations, etc. RAWRA provides the general public with objective and complete information concerning its activities and intentions.

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: TRW

Data available but will not be reported.

RadioNuclide Inventory in Disposal

No data available.

Site (Structure) : Richard

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name: URAO Richard

Description:

Official Website:

License Holder(s): Previously owned and operated by the power generation company CEZ,plc., on Jan 1st 2000 transferred under the management of the state organization - the Radioactive Waste Repository Authority (RAWRA | SURAO).

Comment # 380: Information

Abandoned mine Richard (60 km N of Prague) serves as repository for radioactive waste from research, industry and medicine.

Comment # 14555: Site Richard

In 2006 and 2007 disposal chambers 8/2, 9 a 12 were upgraded (hydraulic cage) and filled with waste. New concrete floor was laid down in chambers 13 and 22 and these chambers will be used for the disposal of waste.

Comment # 26994: Institutional Framework

The Radioactive Waste Repository Authority's mission is to ensure safe disposal of existing and future radioactive waste (RAW) in the Czech Republic and to safeguard the requirements for the protection of human health and the environment from the adverse impacts of such waste. RAWRA works in active and open co-operation with the local communities and municipalities in the vicinity of which repositories are located, as well as with the general public represented by non-governmental environmental organizations, civic associations, etc. RAWRA provides the general public with objective and complete information concerning its activities and intentions.

Waste management facilities that are located at this site:

Facility:	URAO R
Description:	The repository is used to dispose of particularly RAW containing artificial radionuclides. Separately from the disposed RAW there are also stored RAW, which cannot be currently disposed and wait to be disposed in a suitable repository.
Detailed Facility Description:	The facility consists of twenty mined cavities of various dimensions with capacity ranging from 77 m ³ up to 1200 m ³ . The engineered barriers presently do not exist. As an access route serves a standard tunnel (Fig. on the right) with concrete lagging of a semicircular profile to enable the waste transport. The communication route is 6 - 8 m wide and 4 - 5 m high. The individual storage rooms are accessible from the communication route.
Waste Packages:	The overwhelming majority of waste disposed until 1975 is deposited in drums (usually of 60-litre which are galvanized or coated with anticorrosive asphalt paint). Since 1975 packages consist mainly of galvanized 100-liter drums which are subsequently loaded into 200-litre drums (overpacks). The space between the two drums is then filled with concrete thus forming a 5-cm thick concrete protective covering for each drum. Both the inner and outer surfaces of the overpack are galvanized, the outer surface is coated with bitumen to prevent corrosion. RAW repository Richard is designed for disposal of institutional wastes, and its waste acceptance criteria include radiation, physical, mechanical, chemical and administrative requirements. Currently 6260 m ³ of the estimated waste capacity of 8300 m ³ is filled by 2570 m ³ of RAW.
Facility Operation:	

Site (Structure) : Richard

Country: CZECH REPUBLIC

Reporting Year: 2013

The repository is operated in a standard manner in agreement with the operating regulations, with the limits and conditions for safe operation with the acceptability conditions. Current maintenance is performed in the underground part of the mine and in the surface facilities. The individual packages are disposed in disposal chambers. After filling the cavity, the space is closed with steel grids to assure perfect ventilation and to prevent access of unauthorized persons.

Individual packages are stored to maximize utilization of the space in the individual cavities, in 5 layers (from the viewpoint of strength capacity up to 8 layers may be stacked without damage of the bottom layer of the packages).

Closure of the repository is expected in 2070. It is anticipated that disposal rooms and access tunnels will be filled with a mixture based on cements or clayey sealing material. Institutional control is anticipated for a period of 300 years after the operation is terminated.

Financing: Activities are financed from the nuclear account, which collects payments by the radioactive waste producers; the nuclear account is administered by the Ministry of Finance.

Storage part of facility**URAO R**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	Yes	No
LILW-LL	Yes	No
HLW	No	No

List SRS?	Yes
List UMMT?	No

Capacity:	
-----------	--

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
komora	cave	1964	No	No	No	Yes

Site (Structure) : Richard

Country: CZECH REPUBLIC

Reporting Year: 2013

Disposal part of facility **URAO R**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
TRW	No	No
LILW-SL	Yes	No
LILW-LL	No	No
HLW	No	No

List SRS?	Yes
List UMMT?	No

Type:	engineered near surface		
Facility is modular?	No		
Capacity existing (m3):	8400	Capacity planned (m3):	8400

Depth (m):	30-60	Host medium:	sedimentary (other)
------------	-------	--------------	---------------------

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1961	0	False
site selection		1961	False
design	1961	0	False
construction		1962	False
commissioning	1964	0	False
operation	1964	2070	False
closure	2070	0	True
ACTIVITY: upgrading	2006	2007	False

Comment **# 9799: Calculation of used repository capacity**

From the total volume of 17 050 m3 of only 8400 m3 can be used for disposal of RAW. At the end of 2004 about 6260 m3 of RAW, at the end of 2006 about 6478 m3 of RAW and at the end of 2007 about 7300 m3 were disposed.

Site (Data) : Richard

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: Richard

Full Name: URAO Richard

Inventory Reporting Date: December 2013

Waste Matrix Used: cz-eu

Comment # 380: Information

Abandoned mine Richard (60 km N of Prague) serves as repository for radioactive waste from research, industry and medicine.

Comment # 14555: Site Richard

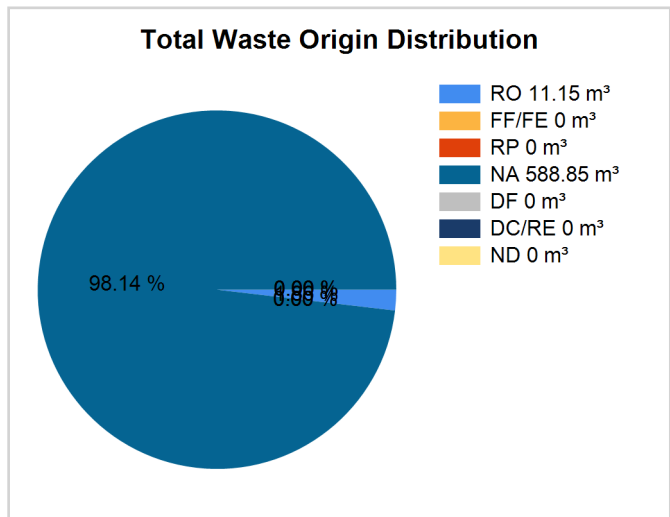
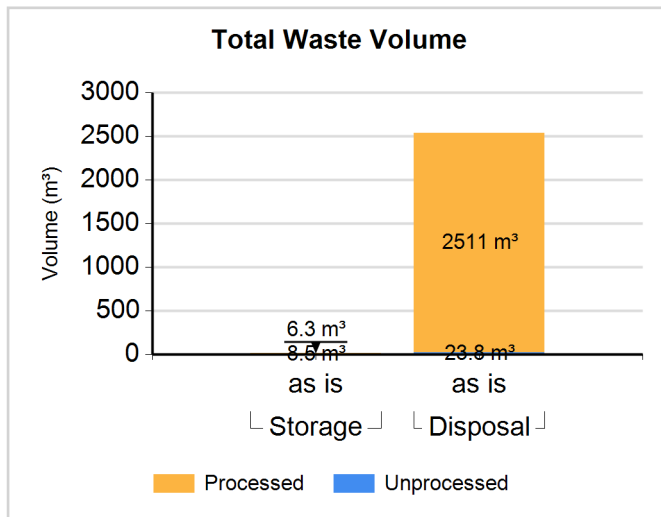
In 2006 and 2007 disposal chambers 8/2, 9 a 12 were upgraded (hydraulic cage) and filled with waste. New concrete floor was laid down in chambers 13 and 22 and these chambers will be used for the disposal of waste.

Comment # 26994: Institutional Framework

The Radioactive Waste Repository Authority's mission is to ensure safe disposal of existing and future radioactive waste (RAW) in the Czech Republic and to safeguard the requirements for the protection of human health and the environment from the adverse impacts of such waste. RAWRA works in active and open co-operation with the local communities and municipalities in the vicinity of which repositories are located, as well as with the general public represented by non-governmental environmental organizations, civic associations, etc. RAWRA provides the general public with objective and complete information concerning its activities and intentions.

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: LILW-SL

Data available but will not be reported.

Waste Class: LILW-LL

Data available but will not be reported.

Site (Data) : Richard

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

RadioNuclide Inventory in Disposal

No data available.

Comment **# 26892: Revision of historical records**

Historical records from 2000 - 2011 were revised in 2012 and 2013 and new inventory list were issued.

Site (Structure) : NT

Country: CZECH REPUBLIC

Reporting Year: 2013

Full Name:

Description:

Official Website:

License Holder(s):

Waste management facilities that are located at this site:

Facility:	ND		
Description:			
Disposal part of facility	ND		
The following shows disposal status for waste classes and SRS.			
Waste Class	Actual	Planned	
TRW	Yes	No	
LILW-SL	Yes	No	
LILW-LL	Yes	No	
HLW	No	No	
List SRS?	No		
List UMMT?	No		
Type:	engineered near surface		
Facility is modular?	No		
Depth (m):		Host medium:	unknown (site not selected)
Phase Name	Start Year	End Year	Estimate

Site (Structure) : NT

Country: CZECH REPUBLIC

Reporting Year: 2013

Facility:	NS		
Description:			
Storage part of facility NS			
The following shows storage status for waste classes and SRS.			
Waste Class	Actual	Planned	
TRW	No	No	
LILW-SL	Yes	No	
LILW-LL	Yes	No	
HLW	No	No	
List SRS?	No		
List UMMT?	No		
Capacity:			

Site (Data) : NT

Stock of waste as at December 2013

Country: CZECH REPUBLIC

Reporting Year: 2013

Site Name: NT

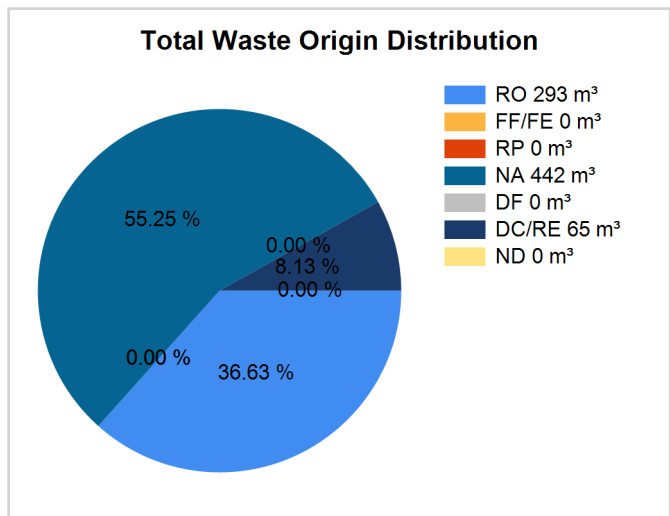
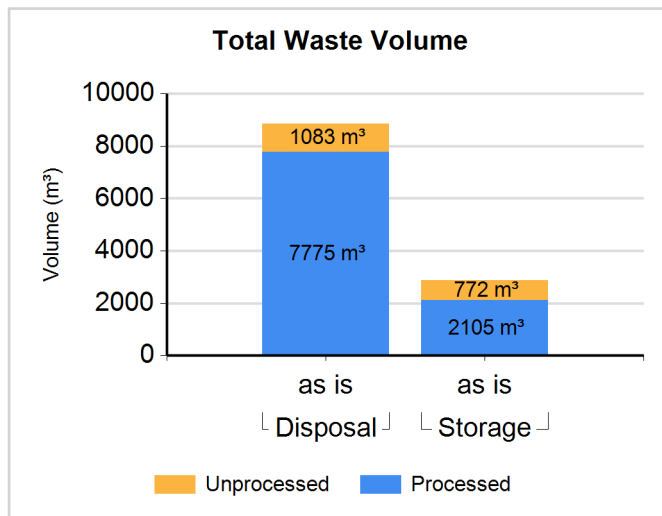
Full Name:

Inventory Reporting Date: December 2013

Waste Matrix Used: cz-eu

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: TRW

Waste Class Name	Location / Facility	Proc.	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
TRW	Disposal	Y	N	330.000	330.000	0.00	0.00	0.00	100.00	0.00	0.00	0.00

Waste Class: LILW-SL

Waste Class Name	Location / Facility	Proc.	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
LILW-SL	Storage	N	N	768.000	768.000	35.00	0.00	0.00	2.00	0.00	63.00	0.00
LILW-SL	Storage	Y	N	2094.000	2094.000	96.00	0.00	0.00	2.00	0.00	2.00	0.00
LILW-SL	Disposal	N	N	1083.000	1083.000	97.00	0.00	0.00	3.00	0.00	0.00	0.00
LILW-SL	Disposal	Y	N	7128.000	7128.000	65.00	0.00	0.00	35.00	0.00	0.00	0.00

Waste Class: LILW-LL

Waste Class Name	Location / Facility	Proc.	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
LILW-LL	Storage	N	N	4.000	4.000	0.00	0.00	0.00	100.00	0.00	0.00	0.00
LILW-LL	Storage	Y	N	11.000	11.000	0.00	0.00	0.00	100.00	0.00	0.00	0.00
LILW-LL	Disposal	Y	N	317.000	317.000	0.00	0.00	0.00	100.00	0.00	0.00	0.00

Regulators

Country: CZECH REPUBLIC

Reporting Year: 2013

Name:	SUJB
Full Name:	State Office for Nuclear Safety
Divison:	Division of Radioactive Waste and Spent Fuel Management
City or Town:	Prague
Main Website:	

Regulations / Laws

Country: CZECH REPUBLIC

Reporting Year: 2013

Name:	Atomic Act	
Title or Name:	Act on Peaceful Use of Nuclear Energy and Ionizing radiation	
Reference Number:	18/1997	
Date Promulgated or Proclaimed:	1/24/1997	Law

Name:	307	
Title or Name:	Decree of the State Office for Nuclear Safety on Radiation Protection	
Reference Number:	307/2002	
Date Promulgated or Proclaimed:	6/13/2002	Regulation

Name:	317	
Title or Name:	Decree Of the State Office for Nuclear Safety, on Type Approval of Packaging Assemblies for Transport, Storage and Disposal of Nuclear Materials and Radioactive Substances, on Type Approval of Ionizing Radiation Sources and on Transport of Nuclear Materials and Specified Radioactive Substances	
Reference Number:	317/2002	
Date Promulgated or Proclaimed:	6/13/2002	Regulation

Name:	145	
Title or Name:	Decree of the State Office for Nuclear Safety, on Accounting for and Control of Nuclear Materials and their Detailed Specification	
Reference Number:	145/1997	
Date Promulgated or Proclaimed:	6/19/1997	Regulation

Name:	214	
Title or Name:	Decree of the State Office for Nuclear Safety, on Quality Assurance in Activities Related to the Utilization of Nuclear Energy and in Radiation Activities, and Laying Down Criteria for the Assignment and Categorization of Classified Equipment into Safety Classes	
Reference Number:	214/1997	
Date Promulgated or Proclaimed:	8/15/1997	Regulation

Regulations / Laws

Country: CZECH REPUBLIC

Reporting Year: 2013

Name:	318		
Title or Name:	Decree of the State Office for Nuclear Safety, on Details of Emergency Preparedness of Nuclear Facilities and Workplaces with Ionising Radiation Sources and on Requirements on the Content of On-Site Emergency Plan and Emergency Rule		
Reference Number:	318/2002		
Date Promulgated or Proclaimed:	6/13/2002	Regulation	

Name:	185		
Title or Name:	Decree of the State Office for Nuclear Safety on Decommissioning of Nuclear Facilities or Workplaces of IIIth or IVth Category		
Reference Number:	185/2003		
Date Promulgated or Proclaimed:	6/3/2003	Regulation	

Country: CZECH REPUBLIC

Reporting Year: 2013

Policies

Country: CZECH REPUBLIC

Reporting Year: 2013

National Systems

Policy		(Yes;Partially;No)
Q14	Has your Country implemented a national policy for radioactive waste management?	Yes
Comment	# 7409: Joint Convention report	
	For more details see "National Report of the Czech Republic under the Joint Convention on Safety in SF Management and Safety in RAW Management (Chapter 2)" at www.sujb.cz	

Strategies		(Yes;Partially;No)
Q15	Has your country developed strategies to implement a national policy?	Yes
Attachment	#818: Questionnaire	
	WM concept RAWRA.doc	
	Summary of the Concept of Radioactive Waste Management in the Czech Republic	

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: CZECH REPUBLIC

Reporting Year: 2013

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)?	Yes

Policies

Country: CZECH REPUBLIC

Reporting Year: 2013

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 - All
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?	Yes
Q62	If the answer to the previous question was YES, does your Country have any policies, laws or regulations that prescribe what records are to be maintained?	Yes
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: CZECH REPUBLIC

Reporting Year: 2013

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)	Yes
Q78	Does your country have any legislation, regulation, or policy that waste processing must take place prior to storage (see following note)	Yes
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)?	No
Q124	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

Comment **# 9781: Policies Processing/Storage-Foreign**

It is expected, that within the framework of the Russian Research Reactor Fuel Return Program covered in the Global Thread Reduction Initiative the spent fuel from research reactors will be shipped to the Russian Federation for reprocessing before 2010.

Policies

Country: CZECH REPUBLIC

Reporting Year: 2013

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

Policies

Country: CZECH REPUBLIC

Reporting Year: 2013

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

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

Comment # 6915: Act No. 18/1997

Licence Application shall contain

- in the event that radioactive waste is to be generated as a part of activities being licensed, a document demonstrating safe management of radioactive waste, including associated funding of this management;
- decommissioning programmes as specified in the licence;
- an estimate of total costs of decommissioning verified by the Radioactive Waste Repository Authority exceeds 300 000 CZK, steadily make provision for decommissioning of nuclear installation or category III or IV workplace, so that financial resources deposited on a blocked account will be available for preparation and performing of decommissioning, at the required time and in the required amount

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? Yes - Some

Radionuclide Inventory by Waste Class

Country: CZECH REPUBLIC

Reporting Year: 2013

- 3

Total Alpha Activity (GBq):	0
Total Beta/Gamma Activity (GBq):	0

RadioNuclide	Activity (GBq)
Americium (Am-241)	0.15
Americium (Am-241)	0.0082
Americium (Am-241)	0.568
Americium (Am-241)	0.0079
Calcium (Ca-41)	0.0912
Calcium (Ca-41)	0.315
Calcium (Ca-41)	0.0121
Calcium (Ca-41)	0.207
Carbon (C-14)	8241
Carbon (C-14)	6.67
Carbon (C-14)	0.359
Carbon (C-14)	181
Carbon (C-14)	1.296
Carbon (C-14)	8200
Cesium (Cs-137)	497000
Cesium (Cs-137)	1.6065
Cesium (Cs-137)	8710
Cesium (Cs-137)	49.9
Cesium (Cs-137)	141
Cesium (Cs-137)	502
Chlorine (Cl-36)	8.89
Chlorine (Cl-36)	0
Chlorine (Cl-36)	9.04
Cobalt (Co-60)	13.7
Cobalt (Co-60)	0.58
Cobalt (Co-60)	14.7
Hydrogen (H-3)	53200
Hydrogen (H-3)	35000
Hydrogen (H-3)	2.6
Iodine (I-129)	0.0214

Radionuclide Inventory by Waste Class

Country: CZECH REPUBLIC

Reporting Year: 2013

Iodine (I-129)	0
Iodine (I-129)	0.00106
Iodine (I-129)	0.22
Iodine (I-129)	0.552
Iodine (I-129)	0.54283
Nickel (Ni-59)	1.57
Nickel (Ni-63)	73.69
Nickel (Ni-59)	5.33
Nickel (Ni-63)	39.2
Nickel (Ni-59)	0.593
Nickel (Ni-59)	0.0925
Nickel (Ni-63)	22.8
Nickel (Ni-63)	666
Niobium (Nb-94)	1.24
Niobium (Nb-94)	0.12
Niobium (Nb-94)	0.0575
Niobium (Nb-94)	0.917
Plutonium (Pu-239)	0.288
Plutonium (Pu-239)	0.0027
Plutonium (Pu-239)	0.126
Plutonium (Pu-239)	0.00358
Promethium (Pm-147)	0.00011
Radium (Ra-226)	1262.033
Radium (Ra-226)	1350
Strontium (Sr-90)	2.22
Strontium (Sr-90)	59.3
Strontium (Sr-90)	11.292
Strontium (Sr-90)	24100
Strontium (Sr-90)	27716.02
Strontium (Sr-90)	5.19
Technetium (Tc-99)	1.39
Technetium (Tc-99)	0.086
Technetium (Tc-99)	1.2731
Technetium (Tc-99)	0.0979
Technetium (Tc-99)	0
Technetium (Tc-99)	0.0249

Radionuclide Inventory by Waste Class

Country: CZECH REPUBLIC

Reporting Year: 2013

Thallium (Tl-204)	0.0015
Thorium (Th-232)	0.1178
Thorium (Th-232)	0.137
Uranium (U-238)	495
Uranium (U-238)	342.6

No data available.

No data available.

No data available.

No data available.

No data available.

No data available.

No data available.

No data available.

Spent Fuel Inventory

Country: CZECH REPUBLIC

Reporting Year: 2013

Spent Fuel in Storage

Data available but will not be reported.

Waste Management Infrastructure and Financing

Country: CZECH REPUBLIC

Reporting Year: 2013

National Infrastructure

Nuclear Energy Context:	
Research & Development:	
Policies and Programs:	
Decommissioning and Dismantling:	
Legal Framework:	<p>The Act No. 18/1997 Coll., as amended (the Atomic Act), set forth the conditions for peaceful utilization of nuclear energy and ionizing radiation, including activities subject to license from SUJB. Other provisions of the Atomic Act define:</p> <ul style="list-style-type: none"> • conditions for a license issue, • probity and professional competence of the applicant for a license, • content and particulars of a license application, • SUJB conduct in the administrative proceedings, • license requisites, • alteration, cancellation and cessation of a license. <p>The Czech Government and State Authorities in general are responsible for development and implementation of the legislative framework and the state policy in the field of radioactive waste management which should be in compliance with the international commitments. The State Office for Nuclear Safety is responsible for nuclear safety and radiation protection supervision and for development of legal regulations in the field of nuclear energy use and radioactive waste management. Gives permits for siting, construction, operation and closure of the repositories as well as for RW management in general. The Atomic Act, together with the Act No. 552/1991 Coll., on state supervision, provide SUJB with sufficient powers to execute the state supervision, as well as coercion means to enforce the compliance with legal requirements for nuclear safety and radiation protection. SUJB performs supervision of compliance with the Atomic Act and other regulations issued.</p>
Planned Improvements:	

National Financing

Nuclear installations:	
Legacy Wastes:	
Medical installations:	
Extractive Industries:	
Additional Comments:	

Waste Management Organisations

Country: CZECH REPUBLIC

Reporting Year: 2013

Name:	
Full Name:	
Description:	
Address:	
Main Website:	
Year Established:	1
Legal Nature:	Public

Waste Management Strategies

Country: CZECH REPUBLIC

Reporting Year: 2013

Waste Class	
Strategy	

Waste Management Responsibility

Country: CZECH REPUBLIC

Reporting Year: 2013

Waste Class:	
Regulatory Authority:	
Treatment/Conditioning of Radioactive Waste:	
Transport of Radioactive Waste:	
Development/operation of interim Storage Facilities:	
Development/operation of Disposal Facilities:	
Waste Management Organisation:	
Additional Comments:	

Main Waste Producers

Country: CZECH REPUBLIC

Reporting Year: 2013

Name:	
Full Name:	
Description:	
Address:	
Main Website:	

Future Outlook

Country: CZECH REPUBLIC

Reporting Year: 2013

Outlook for the year: 2030

Data not available.

Outlook for the year: 2050

Data not available.

Outlook for the year: 2100

Data not available.