Country Waste Profile Report for

Estonia

Reporting year: 2000

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

http://www-newmdb.iaea.org/help/profiles5/guide.pdf

For further information, please contact the Responsible Officer via e-mail:

NEWMDB@IAEA.org

The scope and limitations of the first and second NEWMDB data collection cycles (July 2001 - March 2002 and July 2002 - February 2003) are described in the report "Second Consolidated Radioactive Waste Inventory" (April 2003):

http://www-newmdb.iaea.org/help/profiles5/inv.pdf

Waste Class Matrix(ces) Used/Defined

Country: Estonia Reporting Year: 2000

Waste Class Matrix: IAEA Def. , Used

Description: The Agency's standard matrix

Comment #320: Waste Matrix

The IAEA waste matrix is not specified in any law in Estonia and it is used to report to the NEWMDB

Groups Overview

Country: Estonia Reporting Year: 2000

Reporting Group: **National**

Inventory Reporting Date: December 2000

Waste Matrix Used: IAEA Def.

Description:

Site Name	Facilities Defined			
	Processing	Storage	Disposal	Dedicated SRS
Paldiski	1	1	0	1
Tammiku	0	0	1	0

Full Name: The Former Soviet Navy Nuclear Training Centre

License Holder(s) : A.L.A.R.A. AS, National RWMO

Processing Facilities

Name	Pald_WTF
Description	Paldiski Waste Treatment Facility
Type	treatment, conditioning

Storage Facilities

Name	Pald_RWSF
Description	Paldiski Radioactive Waste Storage (temporary storage)

Types of Storage Units

Unit Name	Type	Operating Life (years)	Status	% filled	Modular
Pald_RWSF	building	3	open	17	YES

Dedicated SRS

Name	Pald_RWSF
Description	SRS are accepted for temporary storage only
Type	storage

Comment #425: unprocessed waste

unprocessed waste is metallic scrap, concrete rubble,
plastic, etc. from decontamination and dismantling activities packaged into plastic bags and stored in ISO containers before treatment or conditioning

Comment #426: processed waste

processed waste consists of 221 waste packages, 118
packages with conditioned D&D waste, and 13 packages with SRS in their shielding blocks or transport containers

Attachment #177: Paper presented in ASME Conference Radioactive Waste Management and Environmental Restoration, Nagoya, Japan, 1999

File name: 455 ICEM.pdf

File type: PDF Document

Member State's Reference # Nagoya_99

Attachment #172: Remediation and Decommissioning of Radioative Waste Facilities in Estonia.
Paper presented in Malta conference, November 2001

File name: IAEA-CN-87-32.doc

File type: PDF Document

Member State's Reference # IAEA-CN-87_32

Full Name: The Former Soviet Navy Nuclear Training Centre

Inventory Reporting Date: December 2000 Waste Matrix: IAEA Def.

Waste Inventory

Class	Location	Proc.	Volume (m3)	Distribution in %					
				RO	FF/FE	RP	NA	DF	DC/RE
LILW-SL	Storage	No	77	0	0	0	0	0	100
The additional characteristics of the waste: solid (dispersible); solid (non-dispersible)									
LILW-SL	Storage	Yes	235	0	0	0	9	0	91
The additional characteristics of the waste: resin; sludge; solid (dispersible); solid (non-dispersible)									

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

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Size Reduction	No	No	increase	No
Stabilization	No	No	increase	No

Processing - Conditioning method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Cementation	No	No	increase	No

Spent Sources <=30 years

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 more than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBq					
	num./activity	num./activity	num./activity					
Sr-90		37		No	Yes	2	7.90E+05	
		7.90E+05						
Sr-90	96			No	Yes	3	7.80E+01	
	7.80E+01							
Kr-85		2		No	Yes	2	1.20E+01	
		1.20E+01						
Cs-137		451		No	Yes	2	1.70E+05	
		1.70E+05						
Co-60		6		No	Yes	1	5.90E+03	
		5.90E+03						
Co-60	21			No	Yes	3	1.50E+01	
	1.50E+01							
Pm-147	2			No	Yes	3	2.70E-03	
	2.70E-03							
Cs-137	250			No	Yes	3	7.90E+01	
	7.90E+01							

Spent Sources >30 years

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 more than 4GBq but less than or equal 4E+4GBq					
	num./activity	num./activity					

Am-241		26	No	Yes	2	1.20E+02	
		1.20E+02					
Pu-239		3	No	Yes	2	3.90E+01	
		3.90E+01					
Pu-239	7853		No	Yes	3	1.20E+02	
	1.20E+02						

Full Name: Tammiku Radioactive Waste Depository

License Holder(s) : A.L.A.R.A. AS, National RWMO

Disposal Facilities

Name	Tammiku		
Description	RADON type facility for institutional RW		
Type	engineered near surface		
Facility is non modular			
Capacity - existing (m3)	200	Capacity -planned (m3)	200
% of **existing capacity** used	55	Depth (m)	0-3
Host medium	sedimentary (sand)		

Waste Class	Actual	Planned	Waste Class	Actual	Planned
LILW-SL	Yes	No	LILW-LL	Yes	No
HLW	No	No			
Disused/spent, sealed radioactive sources (SRS).				Yes	No

Phase	Start Year	End Year
planning and/or concept assessment		
site selection		
design		
construction		
commissioning		
operation	1963	1995
closure		
institutional control		

Attachment #170: Short description of the Tammiku facility

File name: Tammiku.PDF

File type: PDF Document

Country: Estonia Reporting Year: 2000

Full Name: Tammiku Radioactive Waste Depository

Inventory Reporting Date: December 2000 Waste Matrix: IAEA Def.

Waste Inventory

Class	Location	Proc.	Volume (m3)	Distribution in %					
				RO	FF/FE	RP	NA	DF	DC/RE
LILW-SL	Disposal	No	105	0	0	0	100	0	0
The additional characteristics of the waste: solid (non-dispersible)									
LILW-LL	Disposal	No	5	0	0	0	100	0	0
The additional characteristics of the waste: solid (non-dispersible)									

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

REGULATORS

Country: Estonia Reporting Year: 2000

Name	ERPC
Full Name	Estonian Radiation Protection Centre
Division	
City or Town	Tallinn
Wastes that are regulated by the Regulator	Matrix IAEA Def. - LILW-SL, LILW-LL, HLW

Name	Rad_Act	
Title or Name	Radiation Act (Kiirgusseadus)	
Reference Number	RKs nr.135	
Date Promulgated or Proclaimed	1997-04-23	Law
Wastes that are covered by the identified Law	Matrix IAEA Def. - LILW-SL, LILW-LL, HLW	

Comment #411: Link to English version of the Radiation Act

http://www.legaltext.ee/text/en/X2032K6.htm

Attachment #171: Development and Problems of Radioactive Waste Management Infrastructure in Estonia. Paper presented in Malta Conference, November 2001

File name: IAEA-CN-87_97P.PDF

File type: PDF Document

Member State's Reference # IAEA-CN-87_97P

Name	KKM_53_98	
Title or Name	Regulation of the Minister of the Environment on the order of management, registration and transference of radioactive waste	
Reference Number	RTL 1998 264/265 1086	
Date Promulgated or Proclaimed	1998-08-17	Regulation
Wastes that are covered by the identified Law	Matrix IAEA Def. - LILW-SL, LILW-LL, HLW	

Comment #412: Com_1

The regulation imposes detailed requirements for radioactive waste management and covers the storage and disposal of radioactive waste and radioactive waste management facilities. It also sets out basic safety criteria for siting, design and operation of RW management facilities.