

Site (Data) : Novi Han

Stock of waste as at December 2012

Country: BULGARIA

Reporting Year: 2012

Site Name: Novi Han

Full Name: Novi Han Repository

Inventory Reporting Date: December 2012

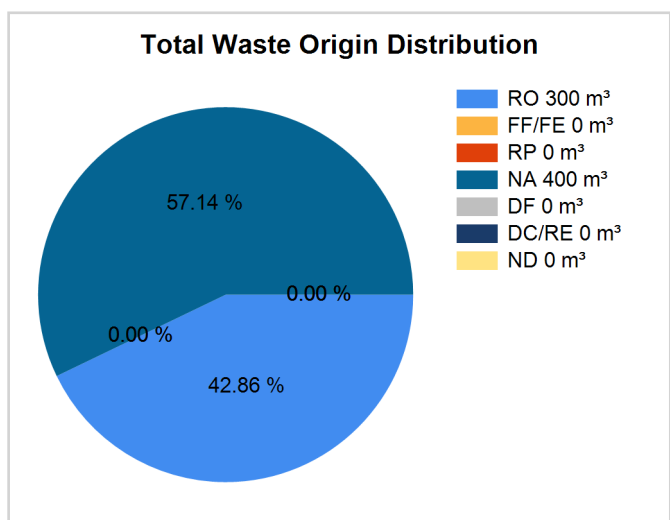
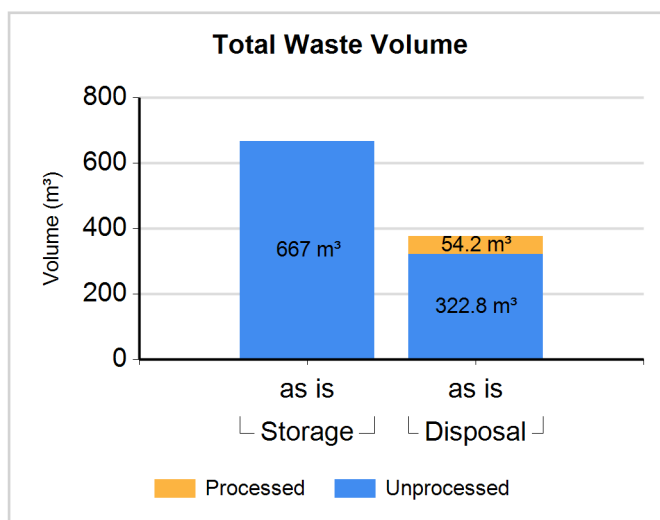
Waste Matrix Used: BGNatI

Comment # 26988: Institutional Framework

The Novi Han repository is managed and operated by the Institute for Nuclear Research and Nuclear Energy of the Bulgarian Academy of Sciences. CUEAPP is the regulatory authority for radioactive waste management in Bulgaria.

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: Category 2b

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
Category 2b	Storage / Stor2000	N	N	450.000	450.000	0.00	0.00	0.00	100.00	0.00	0.00	0.00

Waste Class: Category 2a

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
Category 2a (liquid)	Storage / Liquid	N	N	69.000	69.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Category 2a (solid)	Storage / Stor2000	N	N	148.000	148.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Category 2a	Disposal / Accidental	N	N	72.800	72.800	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Category 2a	Disposal / Biological	Y	N	51.200	51.200	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Category 2a	Disposal / Solid	N	N	250.000	250.000	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Category 2a	Disposal / Solid	Y	N	3.000	3.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00

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Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Decontamination	N	Y	Same	N
Filtration	N	Y		N
Segregation/Sorting	N	Y	Same	N
Wastewater Treatment	N	Y	Same	N

Processing - Conditioning method(s)

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

Spent Sources <=30 years in Storage

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					
Ba-133	7			N	Y	N	3.720E-001	
	3.720E-001							
Cd-109	49			N	Y	N	2.550E+000	
	2.550E+000							
Ce-141	1			N	Y	N	4.000E-002	
	4.000E-002							
Ce-144	6			N	Y	N	8.850E-002	
	8.850E-002							
Cf-252	4			N	Y	Y	9.100E-002	
	9.100E-002							

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Co-57	12			N	Y	Y	1.460E-003	
	1.460E-003							
Co-60		357		N	Y	Y	1.670E+003	
		1.670E+003						
Co-60		36		N	Y	Y	6.270E+003	
		6.270E+003						
Cr-51	1			N	Y	N	4.000E-001	
	4.000E-001							
Cs-137	2962			N	Y	Y	3.420E+003	
	3.420E+003							
Eu-152	5			N	Y	N	1.000E-001	
	1.000E-001							
Fe-55	22			N	Y	Y	2.070E+001	
	2.070E+001							
H-3	21			N	Y	Y	3.920E-001	
	3.920E-001							
Kr-85	12271			N	Y	Y	4.710E+002	
	4.710E+002							
Na-22	16			N	Y	Y	6.540E-003	
	6.540E-003							
Pm-147	14			N	Y	Y	5.090E+001	
	5.090E+001							
Sr-90	741			N	Y	Y	1.560E+002	
	1.560E+002							
Tl-204	19			N	Y	N	2.000E+001	
	2.000E+001							

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Spent Sources > 30 years in Storage

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					
Am-241		34447	N	Y	Y	7.870E+004	
		7.870E+004					
Am-241		16	N	Y	Y	3.740E+001	
		3.740E+001					
C-14	104		N	Y	N	5.000E+000	
	5.000E+000						
Cl-36	4		N	Y	N	4.630E+000	
	4.630E+000						
Pu-238	1462		N	Y	N	4.000E+002	
	4.000E+002						
Pu-239	70437		N	Y	N	8.930E+002	
	8.930E+002						
Pu-239		71	N	Y	Y	1.850E+003	
		1.850E+003					
Ra-226		1	N	Y	Y	2.400E+000	
		2.400E+000					
Ra-226	219		N	Y	Y	5.590E+000	
	5.590E+000						
Th-232	14		N	Y	N	1.780E-001	
	1.780E-001						

Comment

7416: Neutron generators

Separately reported Am-241, Pu-239 and Ra-226 sources of lower number (16, 71 and 1) are in fact neutron generators (e.g. Am-241/Be).