



Country Waste Profile Report for TURKEY 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: TURKEY

Reporting Year: 2013

Waste Class Matrix: **IAEA Def.**

This country does use the IAEA Scheme: Yes

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: **National**

Yes

Description: Turkish National Classification Scheme for Radioactive Waste

Waste Class Name	Distribution %			
	VLLW	LLW	ILW	HLW
VLLW	100.0	0.0	0.0	0.0
LILW-SL	10.0	90.0	0.0	0.0
LILW-LL	0.0	0.0	100.0	0.0
HLW	0.0	0.0	0.0	100.0

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

This country uses the IAEA standard definition:

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

Groups Overview

Country: TURKEY

Reporting Year: 2013

Reporting Group:	CNAEM			
Inventory Reporting Date:	December 2013			
Waste Matrix Used:	National			
Description:	Centralized Waste Processing and Storage Facility			
	Site Name	Facility Name	Facilities Defined	
	CNAEM	Storage		storage
		Tre.&Cond.	processing	

Reporting Group:	National Total			
Inventory Reporting Date:	December 2013			
Waste Matrix Used:	IAEA Def.			
Description:				
	Site Name	Facility Name	Facilities Defined	
	NT	NS		storage

Site (Structure) : NT

Country: TURKEY

Reporting Year: 2013

Full Name:

Description:

Official Website:

License Holder(s):

Waste management facilities that are located at this site:

Facility:	NS																
Description:																	
<p>Storage part of facility NS</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>VLLW</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>LLW</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>ILW</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>HLW</td> <td>No</td> <td>No</td> </tr> </tbody> </table>			Waste Class	Actual	Planned	VLLW	Yes	No	LLW	Yes	No	ILW	Yes	No	HLW	No	No
Waste Class	Actual	Planned															
VLLW	Yes	No															
LLW	Yes	No															
ILW	Yes	No															
HLW	No	No															
List SRS?	No																
List UMMT?	No																
Capacity:																	

Site (Data) : NT

Stock of waste as at December 2013

Country: TURKEY

Reporting Year: 2013

Site Name: NT

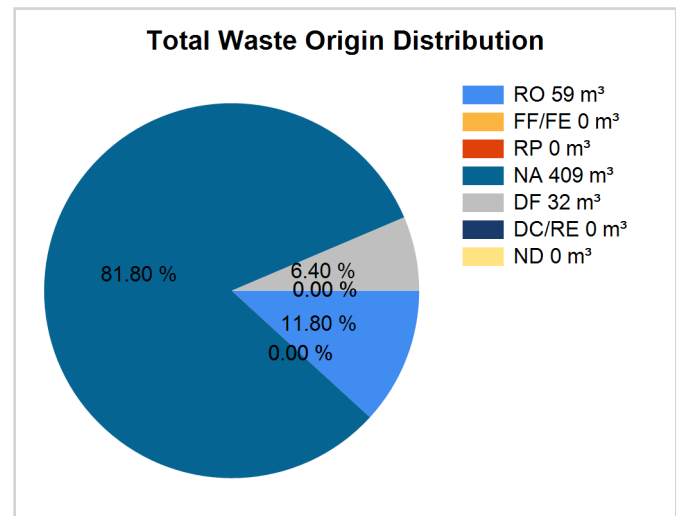
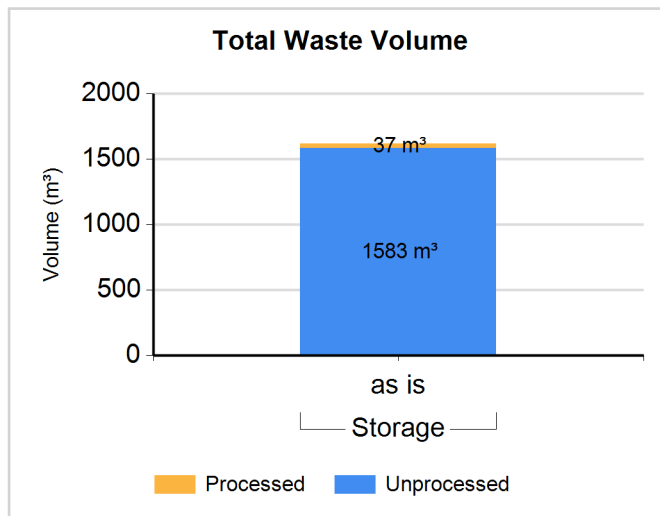
Full Name:

Inventory Reporting Date: December 2013

Waste Matrix Used: IAEA Def.

Waste Inventory

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



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

Waste Class: VLLW

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
VLLW	Storage	N	N	1500.000	1500.000	0.00	0.00	0.00	68.00	32.00	0.00	0.00
VLLW	Storage	Y	N	20.000	20.000	0.00	0.00	0.00	100.00	0.00	0.00	0.00

Waste Class: LLW

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
LLW	Storage	N	N	60.000	60.000	0.00	0.00	0.00	100.00	0.00	0.00	0.00

Waste Class: ILW

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
ILW	Storage	N	N	23.000	23.000	0.00	0.00	0.00	100.00	0.00	0.00	0.00
ILW	Storage	Y	N	17.000	17.000	59.00	0.00	0.00	41.00	0.00	0.00	0.00

Country: TURKEY

Reporting Year: 2013

Name:	Regulator
Full Name:	Turkish Atomic Energy Authority
Divison:	
City or Town:	Ankara
Main Website:	

Comment # 6710: Wastes that are regulated by the Regulator

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Regulations / Laws

Country: TURKEY

Reporting Year: 2013

Name:	Reg1	
Title or Name:	Turkish Atomic Energy Act	
Reference Number:	Official Gazette 17753 and Turkish Law Number 2690	
Date Promulgated or Proclaimed:	7/13/1982	Law

Comment **# 6711: Wastes that are regulated by the Law**

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Name:	Reg2	
Title or Name:	Radiation Safety Charter(Radyasyon Guvenligi Tuzugu)	
Reference Number:	Official Gazette 18861	
Date Promulgated or Proclaimed:	9/7/1985	Regulation

Comment **# 6712: Wastes that are regulated by the Regulation**

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Name:	Reg3	
Title or Name:	Radiation Safety Legislation (Radyasyon Güvenligi Yönetmeliği)	
Reference Number:	Official Gazette 23999	
Date Promulgated or Proclaimed:	3/24/2000	Regulation

Comment **# 6713: Wastes that are regulated by the Regulation**

Matrix IAEA Def. - HLW, LILW-LL, LILW-SL

Name:	Reg4	
Title or Name:	Regulation on Waste arising from the use of Radioactive Materials (Radyoaktif Madde Kullanimından Olusan Atıklara İlişkin Yönetmelik)	
Reference Number:	Official Gazette 25571	
Date Promulgated or Proclaimed:	9/2/2004	Regulation

Attachment **#2154: Regulation**

Regulation on Wastes From the Use of Radioactive Materials.pdf

Regulations / Laws

Country: TURKEY

Reporting Year: 2013

Name:	Reg5		
Title or Name:	Charter on Licensing Nuclear Facilities		
Reference Number:			
Date Promulgated or Proclaimed:	12/19/1983	Regulation	

Name:	RSTRM		
Title or Name:	REGULATION ON SAFE TRANSPORTATION OF RADIOACTIVE MATERIALS		
Reference Number:			
Date Promulgated or Proclaimed:	7/8/2005	Regulation	

Attachment **#2363: Regulation**

TASIMA_YONETMELIGI_ing..pdf

Name:	RRWM		
Title or Name:	REGULATION ON RADIOACTIVE WASTE MANAGEMENT		
Reference Number:			
Date Promulgated or Proclaimed:	3/9/2013	Regulation	

Attachment **#2364: Regulation**

RAY-eng.pdf

Milestones

Country: TURKEY

Reporting Year: 2013

Start Year or Reference Year:	1989	End Year:	
Description of Milestone:			
<p>Waste management activities was started beginning from 1985, as a Technical Cooperation between Turkish Atomic Energy Authority (TAEK) and IAEA, a waste processing and interim storage facility was built up and has been operating since 1989 in Istanbul as a result of that successful project. Compaction, cementation and precipitation processes have been carried out. A series of beneficial regional Predisposal Waste Management Demonstration courses, aiming to the transfer of knowledge and information to the participants from developing countries, have been organized by TAEK and IAEA.</p>			

Policies

Country: TURKEY

Reporting Year: 2013

National Systems

Policy		(Yes;Partially;No)
Q14	Has your Country implemented a national policy for radioactive waste management?	Yes
Strategies		(Yes;Partially;No)
Q15	Has your country developed strategies to implement a national policy?	Yes
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
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

Policies

Country: TURKEY

Reporting Year: 2013

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"?	No
Q129	Has your country ever used a "case-by-case" approach to clearing radioactive wastes (excluding spent/disused sealed radioactive sources)?	No
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: TURKEY

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 - Some
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 - Some
Operation		(Yes - All;Yes - Some;No)
Q60	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	No
Post-Closure		(Yes;No)
Q61	Does your Country have any written policies to address the maintenance of records that describe the design, location and inventory of waste disposal facilities?	No
Q63	Does your Country have any written policies to address active institutional controls or passive institutional controls, such as monitoring or access restrictions?	No

Policies

Country: TURKEY

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

Policies

Country: TURKEY

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)?	No
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?	Yes
Q103	Does your Country have plans to implement dedicated disposal facilities for spent SRS?	Yes
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?	No

Country: TURKEY

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 - Some

Facilities**(Yes;No)**

Q119 Does Your Country have any nuclear fuel cycle facilities? No

Q120 Does Your Country have any nuclear applications facilities (non fuel cycle facilities)? Yes

Timeframe**(Yes - All;Yes - Some;No)**

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: TURKEY

Reporting Year: 2013

- 3

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

RadioNuclide	Activity (GBq)
Cadmium (Cd-109)	0
Cesium (Cs-137)	212.210925
Cobalt (Co-60)	1242544.8854
Germanium (Ge-68)	0
Iridium (Ir-192)	19.21
Iron (Fe-55)	0
Krypton (Kr-85)	32.28
Nickel (Ni-63)	0.529
Promethium (Pm-147)	2.802
Selenium (Se-75)	31.78795
Sodium (Na-22)	0
Strontium (Sr-90)	5.884374

National - VLLW3

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

RadioNuclide	Activity (GBq)
Americium (Am-241)	15.249
Radium (Ra-226)	0.64935

Spent Fuel Inventory

Country: TURKEY

Reporting Year: 2013

Spent Fuel

in Storage

No data available.

Waste Management Infrastructure and Financing

Country: TURKEY

Reporting Year: 2013

National Infrastructure

Nuclear Energy Context:	
Research & Development:	
Policies and Programs:	
Decommissioning and Dismantling:	
Legal Framework:	
Planned Improvements:	

National Financing

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

Waste Management Organisations

Country: TURKEY

Reporting Year: 2013

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

Waste Management Strategies

Country: TURKEY

Reporting Year: 2013

Waste Class	
Strategy	

Waste Management Responsibility

Country: TURKEY

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: TURKEY

Reporting Year: 2013

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

Future Outlook

Country: TURKEY

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.