Country Waste Profile Report for

JAPAN

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: JAPAN Reporting Year: 2013

Waste Class Matrix: **IAEA Def.** This country does use the IAEA Scheme: No

Description: The Agency's standard matrix

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

Waste Class Matrix: **JP**

Description: Radioactive waste is classified into two categories, namely HLW (liquid waste generated from spent fuel reprocessing and its vitrified package) and other LLW. Reported % for LLW is only applicable to disposal packages and will be updated in a future submission. Please refer to the comment that is included for this matrix.

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

Comment **# 12115: Waste classification in Japan**

Radioactive waste other than HLW is usually called as LLW (ie. based on exclusion). Therefore, LLW includes items ranging from very low activity waste from hospitals and universities up to highly active waste such as ion exchange resins from reactor water clean up systems, irradiated reactor core components and some LLW containing transuranic nuclides (so-called TRU waste) which is to be disposed of geologically. The LLW has been sub-classified according to origin (differing radionuclide composition) and level of radioactivity in the development of waste management policy. Waste origin information is supplied according to the %distribution in Waste Data component of the NEWMDB,

Waste Classification Schemes

Country: JAPAN Reporting Year: 2013

Waste Class Matrix: **DISPOSAL**

Description: Disposal-based classification from the Framework for Nuclear Energy Policy (October 11, 2005) decided by Japan Atomic Energy Commission (AEC). Clearance may be regarded but omitted here.
% of “Geological” class is based on future disposal package generation (HLW glass packages and some waste from reprocessing and MOX fuel fabrication those are subjected to the geological disposal). % of “Sub-surface with EBS” class (all LILW-LL) is ad-hoc and controversial.

	Distribution %		
Waste Class Name	LILW-SL	LILW-LL	HLW
Geological	0.0	78.0	22.0
Sub-surface with EBS	0.0	100.0	0.0
Near-surface with EBS	100.0	0.0	0.0
Near-surface without EBS	100.0	0.0	0.0

Comment **# 12127: Disposal-based classification**

In the Framework for Nuclear Energy Policy (October 11, 2005) decided by Japan Atomic Energy Commission (AEC), radioactive waste is grouped into two categories: a) radioactive wastes for geological disposal, and b) radioactive wastes for disposal with institutional control. Methods of disposal with institutional control include: b-1) near-surface disposal without engineered barriers, b-2) near-surface disposal with engineered barriers, and b-3) sub-surface disposal with engineered barriers.

The Framework for Nuclear Energy Policy (October 11, 2005, AEC) is available form:
http://aec.jst.go.jp/jicst/NC/tyoki/taikou/kettei/eng_ver.pdf
(see §2-3. Treatment and Disposal of Radioactive Waste)

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

This country uses the following definitions:

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

Groups Overview

Country: JAPAN Reporting Year: 2013

Reporting Group:	**disposal**
Inventory Reporting Date:	December 2013
Waste Matrix Used:	DISPOSAL
Description:	repository

Site Name	Facility Name	Facilities Defined		
JAEA Tokai	VLLW			disposal
NUMO	HLW			disposal
Rokkasho	LLWDC-1			disposal
	LLWDC-2			disposal

Reporting Group:	**foreign**
Inventory Reporting Date:	December 2013
Waste Matrix Used:	JP
Description:	Sites in Other Countries (No infomation reported according to the NEWMDB instruction. This Reporting Group only means that some waste to be returned are stored in foreign countries.)

Comment **# 12130: Reprocessing in Overseas**

Utilities in Japan have concluded reprocessing contracts with British and French companies for a total of 5,600 t U of spent fuel from light water reactors and 1,500 t U of spent fuel from a gas cooled reactor.

Uranium and Plutonium recovered from reprocessing of spent fuel are returned to each Japanese company as recycled nuclear fuel. At the same time, radioactive waste, a byproduct of reprocessing, is also returned.

Reporting Group:	**JAEA**
Inventory Reporting Date:	December 2013
Waste Matrix Used:	JP
Description:	Japan Atomic Energy Agency Note: Japan Atomic Energy Agency (JAEA) has newly established with the integration of Japan Atomic Energy Research Institute (JAERI) and Japan Nuclear Cycle Development Institute (JNC) as of October 1, 2005. Waste Data is consolidated to the "All JAEA" site.

Site Name	Facility Name	Facilities Defined		
ALL JAEA	all JAEA	processing	storage	

Groups Overview

Country: JAPAN Reporting Year: 2013

Reporting Group:	**JNFL**
Inventory Reporting Date:	December 2013
Waste Matrix Used:	JP
Description:	Japan Nuclear Fuel Limited (JNFL)

Site Name	Facility Name	Facilities Defined		
Rokkasho	REP	processing	storage	
	UEP		storage	
	VWSC		storage	

Reporting Group:	**JRIA**
Inventory Reporting Date:	December 2013
Waste Matrix Used:	JP
Description:	Japan Radioisotope Association (JRIA)

Site Name	Facility Name	Facilities Defined		
RIWM	RWM(RI)	processing	storage	

Reporting Group:	**National Total**
Inventory Reporting Date:	December 2013
Waste Matrix Used:	JP
Description:	

Site Name	Facility Name	Facilities Defined		
NT	ND			disposal
	NS		storage	

Reporting Group:	**U Fuel Fab**
Inventory Reporting Date:	December 2013
Waste Matrix Used:	JP
Description:	Uranium Fuel Fabrication Waste Data is consolidated to the "All FFP" (all fuel fabrication plant) site.

Site Name	Facility Name	Facilities Defined		
All FFP	all FFP	processing	storage	

Groups Overview

Country: JAPAN Reporting Year: 2013

Reporting Group:	**Utilities**
Inventory Reporting Date:	December 2013
Waste Matrix Used:	JP
Description:	Commercial Nuclear Power Generation Waste Data is consolidated to the "All NPS" (all nuclear power station) site. Other (real) sites are for storage units information reporting.

Site Name	Facility Name	Facilities Defined		
All NPS	all NPP	processing	storage	

Site (Structure) : JAEA Tokai

Country: JAPAN Reporting Year: 2013

Full Name: JAEA::
Tokai Research and Development Center

Description:

Official Website:

License Holder(s): Japan Atomic Energy Agency (JAEA)

Waste management facilities that are located at this site:

Site (Structure) : JAEA Tokai

Country: JAPAN Reporting Year: 2013

Facility:	**VLLW**
Description:	Waste Disposal facility (Waste burial test site in the JPDR dismantling project)

Disposal part of facility **VLLW**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
Geological	No	No
Sub-surface with EBS	No	No
Near-surface with EBS	No	No
Near-surface without EBS	Yes	No

List SRS?	No
List UMMT?	No

Type:	trench(es)		
Facility is modular?	No		
Capacity existing (m3):	2520	Capacity planned (m3):	2520

Depth (m):	2.5 - 6.0	Host medium:	sedimentary (sand)

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1981		False
commissioning		1995	False
operation	1995	1996	False
closure	1996		False
institutional control	1997	2027	False

Site (Structure) : NUMO

Country: JAPAN Reporting Year: 2013

Full Name: (To Be Determined)
a future site for the HLW repository to be developed by the Nuclear Waste Management Organization of Japan (NUMO).

Description:

Official Website:

License Holder(s): not licensed (in site selection phase for the HLW repository; NUMO is a disposal implementing entity)

Waste management facilities that are located at this site:

Facility:	**HLW**
Description:	Final Disposal Facility of Vitrified HLW (in Site Selection Phase)

Site (Structure) : NUMO

Country: JAPAN Reporting Year: 2013

Disposal part of facility **HLW**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
Geological	No	Yes
Sub-surface with EBS	No	No
Near-surface with EBS	No	No
Near-surface without EBS	No	No

List SRS?	No
List UMMT?	No

Type:	geological (cavern)		
Facility is modular?	Yes		
Capacity existing (m3):	0	Capacity planned (m3):	6000

Depth (m):	> 300	Host medium:	unknown (site not selected)

Phase Name	Start Year	End Year	Estimate
site selection	2002	2027	True
construction	2025		True
operation	2035		True

Site (Structure) : NUMO

Country: JAPAN Reporting Year: 2013

Comment **# 12191: Capacity - planned:**

The capacity of a final disposal facility is not less than 40,000 canisters.
«Program for Final Disposal of the Specified Radioactive Waste, cabinet decision, October 28, 2005» - This program shall be provided every 5 years by the Minsister of METI pursuant to the article 4 of the Specified Radioactive Waste Final Disposal Act.

Capacity value in m3 unit is not available, however tentatively reported on the assumption such that a canister volume is 150L in average. (JAEA Toaki:120L, JNFL: 170L)

Comment **# 12192: Depth:**

The Specified Radioactive Waste is to be disposed of at the depth specifed by the Cabinet Order not less than 300 meter under the ground in geological formations.
«Article 2 of the Specified Radioactive Waste Final Disposal Act»

Comment **# 12193: Phase:**

A repository site is to be selected via stepwise procedures pursuant to the Specified Radioactive Waste Final Disposal Act.
• Selection of Preliminary Investigation Areas (PIAs)
• Selection of Detailed Investigation Areas (DIAs) 2009~2013
• Selection of a repository site (2023~2027)

• Design of the repository and licensing
• Start of construction (around 2025)
• Start of operations (2033~2037)

Site (Structure) : Rokkasho

Country: JAPAN Reporting Year: 2013

Full Name: JNFL ::
Low-Level Radioactive Waste Disposal Center

Description:

Official Website:

License Holder(s): Japan Nuclear Fuel Limited (JNFL)

Comment **# 12156: LLW Disposal Center**

Approved for a total capacity of 80,000 m³, the Low-Level Radioactive Waste Disposal Center has now its No.1 and No.2 disposal facility. The ultimate capacity is planned to be 600,000 m³.

Waste management facilities that are located at this site:

Facility:	**LLWDC-1**
Description:	Low-Level Radioactive Waste Disposal Center; No.1 Disposal facility

Site (Structure) : Rokkasho

Country: JAPAN Reporting Year: 2013

Disposal part of facility **LLWDC-1**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
Geological	No	No
Sub-surface with EBS	No	No
Near-surface with EBS	Yes	Yes
Near-surface without EBS	No	No

List SRS?	No
List UMMT?	No

Type:	engineered near surface		
Facility is modular?	Yes		
Capacity existing (m3):	30720	Capacity planned (m3):	40000

Depth (m):	6 - 12	Host medium:	sedimentary (sand)

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1982	1985	False
site selection	1984	1985	False
design	1985	1990	False
construction	1990	2027	False
commissioning	1988	1990	False
operation	1992	2027	False
closure	2027		False
institutional control	2027	2327	False

Comment **# 12157: Disposal Facility LLWDC-1**

Capacity existing: 153,600 drums (=5,120x5x6)
Capacity planned: 200,000 drums

Site (Structure) : Rokkasho

Country: JAPAN Reporting Year: 2013

Facility:	**LLWDC-2**
Description:	Low-Level Radioactive Waste Disposal Center; No.2 Disposal facility

Disposal part of facility **LLWDC-2**

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
Geological	No	No
Sub-surface with EBS	No	No
Near-surface with EBS	Yes	Yes
Near-surface without EBS	No	No

List SRS?	No
List UMMT?	No

Type:	engineered near surface		
Facility is modular?	Yes		
Capacity existing (m3):	20736	Capacity planned (m3):	40000

Depth (m):	11 - 18	Host medium:	sedimentary (sand)

Phase Name	Start Year	End Year	Estimate
planning and/or concept assessment	1992	1993	False
site selection	1984	1985	False
design	1993	1998	False
construction	1998	2030	False
commissioning	1997	1998	False
operation	2000	2030	False
closure	2030		False
institutional control	2030	2330	False

Comment **# 12158: Disposal Facility LLWDC-2**

Capacity existing: 103,680 drums (=12,960x2x4)
Capacity planned: 200,000 drums

Site (Structure) : ALL JAEA

Country: JAPAN Reporting Year: 2013

Full Name: All JAEA facilities

Description:

Official Website:

License Holder(s): Japan Atomic Energy Agency (JAEA)

Waste management facilities that are located at this site:

Facility:	**all JAEA**
Description:	all nuclear/radioactive waste management facilities of JAEA, except a disposal facility at Tokai

Storage part of facility **all JAEA**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
HLW	Yes	Yes
LLW	Yes	Yes

List SRS?	No
List UMMT?	No

Capacity:	sufficient capacity for each licensed activities

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
SWS/B	building	0	No	No	No	No

Processing part of facility **all JAEA**

The following shows processing status for waste classes and SRS.

Waste CLass	Actual	Planned
HLW	Yes	Yes
LLW	Yes	Yes

Type:	Treatment, Conditioning
Year opened:	0

Site (Structure) : Rokkasho

Country: JAPAN Reporting Year: 2013

Full Name: Japan Nuclear Fuel Limited ::
- Uranium Enrichment Plant
(- Low-Level Radioactive Waste Disposal Center) -> see "disposal" reporting group
- Vitrified Waste Storage Center
- Reprocessing Plant

Description:

Official Website:

License Holder(s): Japan Nuclear Fuel Limited (JNFL)

Comment **# 9749: Uranium Enrichment Plant**

• 1,050 tSWU/y

Comment **# 9751: Vitrified Waste Storage Center**

Utilities in Japan have concluded reprocessing contracts with British and French companies for a total of 5,600 t U of spent fuel from light water reactors and 1,500 t U of spent fuel from a gas cooled reactor. In accordance with these contracts, vitrified waste canisters are returned to the utilities and are stored by JNFL.

Comment **# 9752: Reprocessing Plant**

• 800 tU/y (Under Construction)
The Reprocessing Plant is now under final commissioning test. The spent fuel storage building, which has 3,000 tU storage capacity with three wet-pools, have already been in service operation. Spent fuels from NPP sites have been received and stored since 2000.

Comment **# 9753: MOX fuel Fabrication Plant (future facility)**

(out of NEWMDB submission scope) A license application for fuel fabrication (MOX fuel 130 tHM/y) business was submitted in 2005. The construction of the plant started in 2010.

Waste management facilities that are located at this site:

Facility:	**REP**
Description:	Reprocessing Plant; radioactive waste management (RWM) associated with Spent Fuel Reprocessing

Site (Structure) : Rokkasho

Country: JAPAN Reporting Year: 2013

Storage part of facility **REP**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
HLW	No	Yes
LLW	Yes	Yes

List SRS?	No
List UMMT?	No

Capacity:	70,500 drums (14,100 m³) for solid waste 850 m³ for resin waste 2,000 drums (400 m³) for hull/end pieces

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
LRW/B-1	building	1999	No	No	No	No
Resin (1)	tank (stainless steel)	1999	No	No	No	No
LRW/B-2	building	2004	No	No	No	No
Hull/EndPs	building	2006	No	No	No	No
CB/BP	building	2006	No	No	No	No
Resin (2)	tank (stainless steel)	2006	No	No	No	No

Processing part of facility **REP**

The following shows processing status for waste classes and SRS.

Waste CLass	Actual	Planned
HLW	No	Yes
LLW	No	Yes

Type:	Treatment, Conditioning
Year opened:	0

Comment **# 9755: Storage Units in JNFL::REP**

•LRW/B-1: Low Radioactive Waste storage building-1 (for SF storage)
•Resin (1): resin waste tanks in the spent fuel receiving and storage building
•LRW/B-2: Low Radioactive Waste storage building-2 (for Reprocessing)
•Hull/EndP: storage for Hull/End Pieces
•CB/BP: storage for CB and BP
•Resin (2): resin waste tanks of reprocessing

Site (Structure) : Rokkasho

Country: JAPAN Reporting Year: 2013

Facility:	**UEP**
Description:	Uranium Enrichment Plant; radioactive waste management (RWM) associated with Uranium enrichment

Storage part of facility **UEP**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
HLW	No	No
LLW	Yes	Yes

List SRS?	No
List UMMT?	No

Capacity:	6,700 drums (1,340 m³)

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
UEW/B	building	1992	No	No	No	No
U&W S/B	building	2002	No	No	No	No

Comment **# 9748: Storage Units in JNFL::UEP**

•UEW/B: Uranium Enrichment Waste Bldg.
•U&W S/B: Uranium and Waste Storage Bldg.

Site (Structure) : Rokkasho

Country: JAPAN Reporting Year: 2013

Facility:	**VWSC**
Description:	Vitrified Waste Storage Center; Storage facility of Vitrified Waste returned from Overseas

Storage part of facility **VWSC**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
HLW	Yes	Yes
LLW	Yes	Yes

List SRS?	No
List UMMT?	No

Capacity:	1,440 dry storage pits for Vitrified HLW packages 1,200 drums (240 m³)

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
SWS	building	1995	No	No	No	No
VHLW S/B	pit	1995	No	No	No	No

Comment **# 9754: Storage Units in JNFL::VWSC**

Currently, the center has a storage capacity of 1,440 canisters of Vitrified HLW. The additional vitrified HLW storage building, which will have same capacity of 1,440 canisters, is under construction since June 2004 and will be completed in 2009. This means that total storage capacity will be increased to 2,880 canisters.

•SWS: solid waste storage room, located in Vitrified Waste Receiving Building
•VHLW S/B: Vitrified Waste Storage Building

Site (Structure) : RIWM

Country: JAPAN Reporting Year: 2013

Full Name: JRIA's radioisotope waste management sites

Description:

Official Website:

License Holder(s): Japan Radioisotope Association (JRIA)

Comment **# 6940: Activities of JRIA**

The Japan Radioisotope Association is engaged in activities concerning stable supply of various kinds of radioisotopes for research, industrial and medical uses, and collection and treatment of radioisotope wastes. The waste collection system consists of some separate sites, however, all sites of JRIA are abstracted to one site for the convenience of the NEWMDB reporting.

Comment **# 9890: Waste Management in JRIA::RIWM**

Among various radioisotope waste, "medical RI waste" is treated and stored in the Takizawa Laboratory. Another "research RI waste" is stored in other associated sites such as relay stations constituting country-wide waste collection system of JRIA.

Waste management facilities that are located at this site:

Facility:	**RWM(RI)**
Description:	JRIA's radioisotope waste management facilities throughout Japan

Storage part of facility **RWM(RI)**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
HLW	No	No
LLW	Yes	Yes

List SRS?	No
List UMMT?	No

Capacity:	Total 181,100 drums (36,220 m³)

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
Takizawa	building	1987	No	No	No	No
Kanto S/F	building	1966	No	No	No	No
Kanto WRS	building	1979	No	No	No	No
Kanto WRS2	building	1983	No	No	No	No
Ichihara	building	2000	No	No	No	No
Kansai WRS	building	2002	No	No	No	No

Site (Structure) : RIWM

Country: JAPAN Reporting Year: 2013

Processing part of facility **RWM(RI)**

The following shows processing status for waste classes and SRS.

Waste CLass	Actual	Planned
HLW	No	No
LLW	Yes	Yes

Type:	Treatment
Year opened:	0

Comment **# 7103: JRIA radioisotope waste storage facilities**

facilities and licenced year (fiscal)
• Kanto S/F (Kanto Storage Facility): Tokai Vil., Ibaraki Pref.(1966)
• Kanto WRS (Kanto Waste Relay Station): Kashiwa City, Chiba Pref.(1979)
• Kanto WRS2 (Kanto Waste Relay Station II): Kashiwa City, Chiba Pref.(1983)
• Takizawa (Kaya memorial Takizawa laboratory): Takizawa Vil., Iwate Pref.(1985)
• Ichihara Office: Ichihara City, Chiba Pref. (2000)
• Kansai WRS (Kansai Waste Relay Station): Daito City, Osaka Pref.(2002)

Comment **# 12154: Storage Capacity**

Takizawa: 22,400 drums (4,480 m³), Kanto S/F: 5,900 drums (1,180 m³), Kanto WRS: 45,600drums (9,120m³), Kanto WRS2: 22,000drums (4,400m³), Ichihara: 83,600drums (16,720 m³), Kansai WRS: 1,600 drums (320 m³)

Site (Structure) : NT

Country: JAPAN 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
HLW	No	No
LLW	Yes	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: JAPAN 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
HLW	Yes	No
LLW	Yes	No

List SRS?	No
List UMMT?	No

Capacity:	

Site (Data) : NT

Stock of waste as at December 2013

Country: JAPAN Reporting Year: 2013

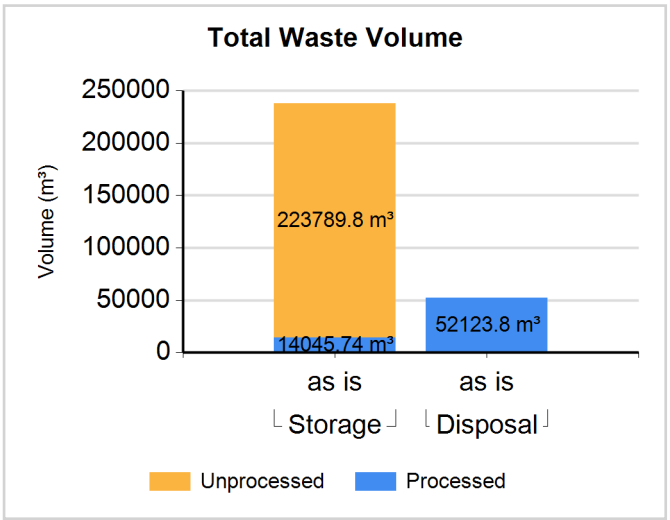
Site Name: **NT**

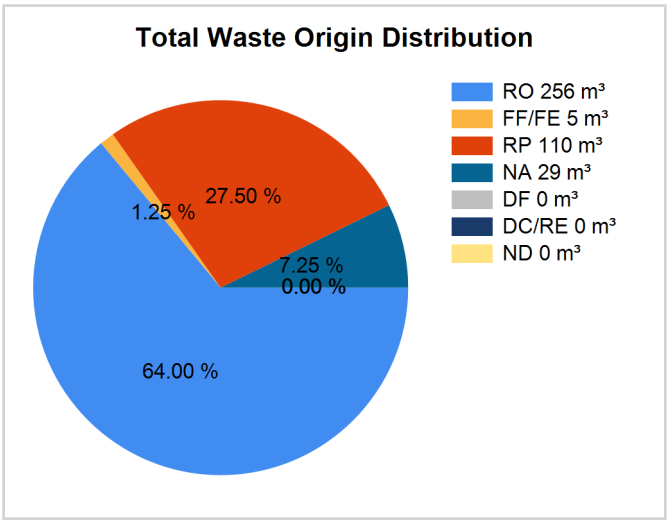
Full Name:

Inventory Reporting Date: December 2013 Waste Matrix Used: JP

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: **HLW**

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
HLW	Storage	Y	N	330.140	330.140	0.00	0.00	100.00	0.00	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	223789.800	223789.800	56.00	5.00	10.00	29.00	0.00	0.00	0.00
LLW	Storage	Y	N	13715.600	13715.600	100.00	0.00	0.00	0.00	0.00	0.00	0.00
LLW	Disposal	Y	N	52123.800	52123.800	100.00	0.00	0.00	0.00	0.00	0.00	0.00

Site (Structure) : All FFP

Country: JAPAN Reporting Year: 2013

Full Name: All nuclear (uranium) fuel fabrication facilities

Description:

Official Website:

License Holder(s):
- Global Nuclear Fuel - Japan Co., Ltd.
- Mitsubishi Nuclear Fuel Co., Ltd.
- Nuclear Fuel Industries, Ltd. (2 licences for fabrication in 2 sites)
- JCO Co., Ltd. (license of fabrication cancelled on March 2000)

Waste management facilities that are located at this site:

Facility:	**all FFP**
Description:	all nuclear fuel fabrication facilities (5 sites)

Storage part of facility **all FFP**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
HLW	No	No
LLW	Yes	Yes

List SRS?	No
List UMMT?	No

Capacity:	Total 58,160 drums (Solid Waste Storage Buildings in 5 fuel fabrication facilities)

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
SWS/B	building	0	No	No	No	No

Processing part of facility **all FFP**

The following shows processing status for waste classes and SRS.

Waste CLass	Actual	Planned
HLW	No	No
LLW	Yes	Yes

Type:	Treatment
Year opened:	0

Site (Structure) : All NPS

Country: JAPAN Reporting Year: 2013

Full Name: All Nuclear Power Stations

Description:

Official Website:

License Holder(s): 9 EPC + JAPC

Waste management facilities that are located at this site:

Facility:	**all NPP**
Description:	all nuclear power reactor facilities

Storage part of facility **all NPP**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
HLW	No	No
LLW	Yes	Yes

List SRS?	No
List UMMT?	No

Capacity:	Total 914,600 drums (Solid Waste Storage Buildings in 18 nuclear power stations)

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
SWS/B	building	0	No	No	No	No

Processing part of facility **all NPP**

The following shows processing status for waste classes and SRS.

Waste CLass	Actual	Planned
HLW	No	No
LLW	Yes	Yes

Type:	Treatment, Conditioning
Year opened:	1970

Regulators

Country: JAPAN Reporting Year: 2013

Name:	**NISA/METI**
Full Name:	Nuclear and Industrial Safety Agency Ministry of Economy, Trade and Industry
Divison:	
City or Town:	Tokyo
Main Website:	

Comment **# 6967: Regulatory Functions**

The Minister of METI, as the competent minister stipulated in the Reactor Regulation Law and the Electric Utilities Industry Law, governs the safety regulation over all activities on the utilization of nuclear energy including nuclear power generation, and NISA was established as a special organization of METI to administer the safety regulation.

NISA, under the Minister of METI, has the authority to issue a license for the establishment of a nuclear facility, after conducting safety examination that the siting, structure and equipment has no hindrance to the prevention of disasters. It also has the authority to cancel the license under certain circumstances such as violation of applicable laws and regulations by the license holder.

Name:	**STPB/MEXT**
Full Name:	Ministry of Education, Culture, Sports, Science and Technology
Divison:	Science and Technology Policy Bureau
City or Town:	Tokyo
Main Website:	

Comment **# 6968: Regulatory Functions**

The safety regulation concerning the activities around the nuclear utilization from a scientific and technological aspect and the utilization of radioisotopes (excluding medicines, etc.) is governed by the Minister of MEXT as the competent minister, and is administered by the Science and Technology Policy Bureau (STPB).

With regard to the licensing of a new business under the Reactor Regulation Law and the radioisotope waste management business under the Radiation Hazards Prevention Law, the Minister of MEXT has the authority to issue the respective licenses, after conducting an examination of the site, structure and equipment from the standpoint of disaster prevention. He or she also has the authority to revoke the licenses under certain circumstances, such as the violation of applicable laws and regulations by the license holder.

Name:	**MHLW**
Full Name:	Ministry of Health, Labour and Welfare
Divison:	- Pharmaceutical and Food Safety Bureau - Health Policy Bureau
City or Town:	Tokyo
Main Website:	

Comment **# 6969: Regulatory Functions**

The Ministry of Health, Labour and Welfare (MHLW) administers the safety regulations for radioactive medicines and the regulations for the protection against clinical radiation.

Regulators

Country: JAPAN Reporting Year: 2013

Name:	**NSC**
Full Name:	Nuclear Safety Commission Cabinet Office
Divison:	
City or Town:	Tokyo
Main Website:	

Comment **# 6970: Regulatory Functions**

The Nuclear Safety Commission (NSC), which was established within the Cabinet Office under the Atomic Energy Basic Law, consists of five members who are appointed by the Prime Minister with the consent of the Diet. The chairperson is elected by the committee from among its members.

The NSC has duties of planning, deliberation and decisions on matters that are related to ensuring safety of the utilization of nuclear energy, and establishes guidelines to be used at the safety examination.

Name:	**JNES**
Full Name:	Japan Nuclear Energy Safety Organization (independent administrative institutions)
Divison:	
City or Town:	Tokyo
Main Website:	

Comment **# 6972: Regulatory Functions**

A law for the establishment of an incorporated administrative agency, "Japan Nuclear Energy Safety Organization" as a technical support organization of NISA was approved in December 2002 by the Diet. The objectives of this organization, which is scheduled to be established in October 2003, is to provide a foundation for the nuclear safety preservation with regard to utilization of nuclear energy.

Name:	**NUSTEC**
Full Name:	Nuclear Safety Technology Center (non-governmental, delegated agency)
Divison:	
City or Town:	Tokyo
Main Website:	

Comment **# 6971: Regulatory Functions**

As to the activities of the STPB related to the safety regulation for the nuclear facility, Nuclear Safety Technology Center (NUSTEC) is designated as an organization for welding inspections of the nuclear facility under the Reactor Regulation Law, periodic inspections of the facilities for radioisotope waste management business under the Radiation Hazards Prevention Law, etc.

Regulations / Laws

Country: JAPAN Reporting Year: 2013

Name:	**Act186/S30**	
Title or Name:	Atomic Energy Basic Act	
Reference Number:	Act No.186 /S30(1955)	
Date Promulgated or Proclaimed:	12/19/1955	Law

Name:	**Act179/H14**	
Title or Name:	Act on Japan Nuclear Energy Safety Organization	
Reference Number:	Act No.179 /H14(2002)	
Date Promulgated or Proclaimed:	12/18/2002	Law

Name:	**Act166/S32**	
Title or Name:	Act on the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors	
Reference Number:	Act No.166 /S30(1957)	
Date Promulgated or Proclaimed:	6/10/1957	Law

Name:	**Act167/S32**	
Title or Name:	Act on Prevention from Radiation Hazards due to Radioisotopes, etc.	
Reference Number:	Act No.167 /S32(1957)	
Date Promulgated or Proclaimed:	6/10/1957	Law

Name:	**Act117/H12**	
Title or Name:	Specified Radioactive Waste Final Disposal Act	
Reference Number:	Act No.117 /H12(2000)	
Date Promulgated or Proclaimed:	6/7/2000	Law

Comment **# 12190: Act117/H12**

The term "Specified Radioactive Waste" as used in this Act (shall) means a vitrified substance remaining after the reprocessing of spent fuel.
«Article 2 of the Specified Radioactive Waste Final Disposal Act»

Regulations / Laws

Country: JAPAN Reporting Year: 2013

Name:	**Act048/H17**	
Title or Name:	Act on Deposit and Management of the Reserve Fund for Spent Fuel Reprocessing and so forth in the Nuclear Power Generation	
Reference Number:	Act No.48 /H17(2005)	
Date Promulgated or Proclaimed:	5/20/2005	Law

Milestones

Country: JAPAN Reporting Year: 2013

Policies

Country: JAPAN 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	Partially
Q18	specified a rational set of safety, radiological and environmental protection objectives	Partially
Q19	implemented a mechanism to identify existing and anticipated radioactive wastes	Partially
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	Partially
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	Partially
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: JAPAN 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"?	Yes
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)?	No

Policies

Country: JAPAN Reporting Year: 2013

Disposal Facilities

	Licensing	(Yes - All;Yes - Some;No)
Q53	Environmental Assessment (EA)	Yes - All
Q54	Environmental Impact Statement (EIS)	Yes - Some
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)?	No

	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: JAPAN 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)	No
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?	Yes
Q123	Currently, are any of your country's wastes (processed or unprocessed, including the products of reprocessing) or spent fuel being stored in another country?	Yes
Q124	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

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?	No

	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?	No
Q101	Does your Country plan to dispose of spent SRS in existing or planned disposal facilities for LILW or HLW waste?	No
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: JAPAN Reporting Year: 2013

Liquid HLW

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

Processing		(Yes - All;Yes - Some;No)
Q107	If your Country has high-level liquid wastes in storage, are there documented plans in place to process these liquids?	Yes - All

Timeframe		(Yes - All;Yes - Some;No)
Q108	If your Country has high-level liquid wastes in storage, are there plans to have this waste be processed within a specified time frame?	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?	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?	No
Q113	Does your Country require a time frame for the decommissioning of non-nuclear fuel cycle facilities once these facilities cease operation?	No

Radionuclide Inventory by Waste Class

Country: JAPAN Reporting Year: 2013

No data available.

No data available.

No data available.

No data available.

No data available.

No data available.

No data available.

No data available.

No data available.

No data available.

Waste Management Infrastructure and Financing

Country: JAPAN 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: JAPAN Reporting Year: 2013

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

Waste Management Strategies

Country: JAPAN Reporting Year: 2013

Waste Class	
Strategy	

Waste Management Responsibility

Country: JAPAN 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: JAPAN Reporting Year: 2013

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

Future Outlook

Country: JAPAN 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.