Country Waste Profile Report for

INDONESIA

Reporting Year: 2004

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: INDONESIA Reporting Year: 2004

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

Description: The Agency's standard matrix

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

Waste Class Matrix: **National** Yes

Description: LILW means LILW-SL in IAEA definition. Alpha Waste for unsealed LILW-LL, and HLW for spent fuels.

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

Comment **# 182: Waste classification**

Not declared clearly on:
(1) Batan, Regulation for safety of Radwaste Management, 1986
(2) Bapeten, Regulation for safety of Radwaste Management, No.3/V-99.
(3) Act. No.10/1997 on Nuclear Energy.

The definition adapted from above regulation and radwaste management practice in Indonesia. Formally, goverment regulation is important to state clearly the above waste classification.

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

Is not defined

Groups Overview

Country: INDONESIA Reporting Year: 2004

Reporting Group:	**Serpong**
Inventory Reporting Date:	December 2004
Waste Matrix Used:	National
Description:	Reporting group located at Radioactive Waste Management Development Center, Serpong Research Establishment, BATAN

Site Name	Facility Name	Facilities Defined		
RWMDC	ENSF			disposal
	HAW-IS		storage	
	IS		storage	
	RCF	processing		
	RWI	processing		

Site (Structure) : RWMDC

Country: INDONESIA Reporting Year: 2004

Full Name: Radioactive Waste Management Development Center, BATAN

Description:

Official Website:

License Holder(s): Radioactive Waste Management Development Center, BATAN

Waste management facilities that are located at this site:

Facility:	**ENSF**
Description:	Engineered Near Surface Disposal Facility

Disposal part of facility

The following shows disposal status for waste classes and SRS.

Waste Class	Actual	Planned
LILW	No	No
Alpha Waste	No	No
HLW	No	No

List SRS?	#Error
List UMMT?	#Error

Type:	
Facility is modular?	#Error

Depth (m):		Host medium:	

Phase Name	Start Year	End Year	Estimate

Site (Structure) : RWMDC

Country: INDONESIA Reporting Year: 2004

Facility:	**HAW-IS**
Description:	Interim Storage for high active waste (HAW). The HAW mainly are fission products that generated from the Isotope Production Center. This facility is a place for delaying and reducing radiation exposure of the HAW for treatment

Storage part of facility **HAW-IS**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
LILW	Yes	Yes
Alpha Waste	Yes	Yes
HLW	No	No

List SRS?	Yes
List UMMT?	No

Capacity:	Consists of 2 type of storages, pool and well storages. The pool type has 3 pools, each has a 3mx4mx3.6m dimension. The well storage has 20 wells and each well can contain 6 x 60 litres waste containers.

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
Pool	pool	1997	No	No	No	Yes
Well	well	1997	No	No	No	Yes

Site (Structure) : RWMDC

Country: INDONESIA Reporting Year: 2004

Facility:	**IS**
Description:	The IS facilitiy is for storing conditioned waste before disposal. There are 2 modules: IS-1 and IS-2.

Storage part of facility **IS**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
LILW	Yes	Yes
Alpha Waste	Yes	Yes
HLW	No	No

List SRS?	Yes
List UMMT?	No

Capacity:	Design capacity of each module is 1500 units of 200L drum and 500 units of 950L/350L shell.

Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
IS-1	building	1989	No	No	Yes	Yes
IS-2	building	2003	No	No	Yes	No

Site (Structure) : RWMDC

Country: INDONESIA Reporting Year: 2004

Facility:	**RCF**
Description:	Radium Conditioning Facility (RCF) is facility for conditioning of Spent Radium Sources

Processing part of facility

The following shows processing status for waste classes and SRS.

Waste CLass	Actual	Planned
LILW	No	No
Alpha Waste	No	No
HLW	No	No

Type:	
Year opened:	

Site (Structure) : RWMDC

Country: INDONESIA Reporting Year: 2004

Facility:	**RWI**
Description:	Radioactive Waste Installation (RWI) is installation for processing radioactive waste such as, volume reduction and conditioning.

Processing part of facility **RWI**

The following shows processing status for waste classes and SRS.

Waste CLass	Actual	Planned
LILW	No	No
Alpha Waste	No	No
HLW	No	No

Type:	Treatment, Conditioning
Year opened:	1989

Site (Data) : RWMDC

Stock of waste as at December 2004

Country: INDONESIA Reporting Year: 2004

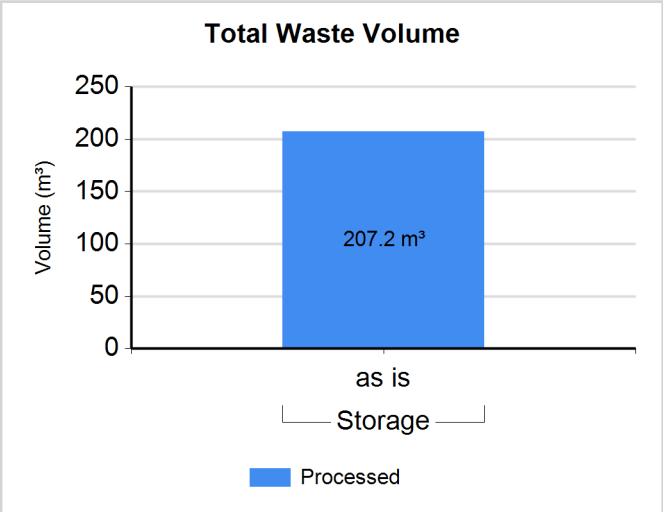
Site Name: **RWMDC**

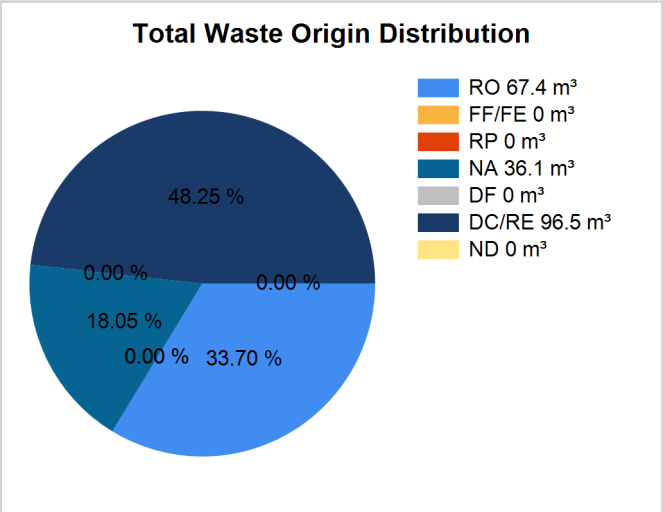
Full Name: Radioactive Waste Management Development Center, BATAN

Inventory Reporting Date: December 2004 Waste Matrix Used: National

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**

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	Storage	Y	N	161.400	161.400	67.40	0.00	0.00	32.60	0.00	0.00	0.00

Waste Class: **Alpha Waste**

Waste Class Name	Location / Facility	Proc	Est.	Volume "as is" (m³)	Volume "as dispo" (m³)	RO %	FF/FE %	RP %	NA %	DF %	DC/RE %	ND %
Alpha Waste	Storage	Y	N	45.800	45.800	0.00	0.00	0.00	3.50	0.00	96.50	0.00

Processing - Treatment method(s)

Method	Status			
	Planned	R&D program	Current practice method use over the last 5 years	Past Practice
Chemical Precipitation	Y	N		N
Compaction	N	N	Same	N
Decontamination	N	N	Same	N
Evaporation	N	N	Same	N
Incineration	N	N	Same	N
Membrane Technology	N	Y		N

Site (Data) : RWMDC

Stock of waste as at December 2004

Country: INDONESIA Reporting Year: 2004

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
Vitrification	N	Y		N

Spent Sources <=30 years in Storage

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 m ore than 4GBq but less than or equal 4E+4GBq	Group III more than 4E+4GBqq					
	num/activity	num/activity	num/activity					
Cd-109	1			Y	N	N	1.850E-001	2003.12
	1.850E-001							
Cf-252	4			Y	N	N	4.070E+000	2003.12
	4.070E+000							
Co-60		91		Y	N	N	1.159E+006	2003.12
		1.159E+006						
Cs-137		133		Y	N	N	7.773E+004	2003.12
		7.773E+004						
Fe-55	1			Y	N	N	1.670E+000	2003.12
	1.670E+000							
Ir-192		18		Y	N	N	4.736E+002	2003.12
		4.736E+002						
Kr-85		18		Y	N	N	1.280E+002	2003.12
		1.280E+002						
Pm-147		6		Y	N	N	1.800E+002	2003.12
		1.800E+002						
Sr-90	102			Y	N	N	8.004E+001	2003.12
	8.004E+001							

Site (Data) : RWMDC

Stock of waste as at December 2004

Country: INDONESIA Reporting Year: 2004

Spent Sources > 30 years in Storage

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 2 GBq	Group II more than 2GBq					
	num/activity	num/activity					
Am-241		37	Y	N	N	3.989E+003	2003.12
		3.989E+003					
Ra-226		7	Y	N	N	1.490E+001	2003.12
		1.490E+001					

Regulators

Country: INDONESIA Reporting Year: 2004

Name:	**NECB**
Full Name:	Nuclear Energy Control Board
Divison:	-
City or Town:	Jakarta
Main Website:	

Regulations / Laws

Country: INDONESIA Reporting Year: 2004

Name:	**Act**	
Title or Name:	Act on Nuclear Energy	
Reference Number:	No.10 year 1997	
Date Promulgated or Proclaimed:	4/10/1997	Law

Name:	**GR-1**	
Title or Name:	Goverment's Regulation on Radioactive Waste Management	
Reference Number:	No. 27 year: 2002	
Date Promulgated or Proclaimed:	5/13/2002	Regulation

Name:	**GR-2**	
Title or Name:	Goverment's Regulation for Safety for Transportation of Radioactive Substance	
Reference Number:	No. 26 Year 2002	
Date Promulgated or Proclaimed:	5/13/2002	Regulation

Milestones

Country: INDONESIA Reporting Year: 2004

Start Year or Reference Year:	2003	End Year:	2007
Description of Milestone:			
National facility for non power reactor generated radwaste			

Future Outlook

Country: INDONESIA Reporting Year: 2004

Data not available.

Future Outlook

Country: INDONESIA Reporting Year: 2004

Data not available.

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