



# **Country Waste Profile Report for CHILE Reporting Year: 2008**

*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](mailto:NEWMDB@IAEA.org)*

## Waste Classification Schemes

Country: CHILE

Reporting Year: 2008

Waste Class Matrix: **IAEA Def.**

This country does use the IAEA Scheme: No

Description: The Agency's standard matrix

Waste Class Name	Distribution %		
	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: **CHILECLASS**

Yes

Description: CATEGORY 1:ALFA EMITTERS, WHATEVER PERIOD OR HALF LIFE  
CATEGORY 2: BETA, GAMMA EMITTERS, HALF LIFE LONGER THAN 100 DAYS

Waste Class Name	Distribution %			
	VLLW	LLW	ILW	HLW
CATEGORY 1	100.0	0.0	0.0	0.0
CATEGORY 2	0.0	100.0	0.0	0.0

Comment **# 141: Category 1**

The distribution of activities relative to the IAEA scheme was based upon known activities of low activity uranium containing waste. Most of this waste has activities below 400 Bq/g, therefore it is considered as near surface disposal waste (i.e. LILW-SL). Some Americium 241 waste from neutron generators and gauges have activities >4000 Bq/g. This is LILW-LL (about 2% by volume)

**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: CHILE

Reporting Year: 2008

<b>Reporting Group:</b>	<b>SEGEDRA</b>			
Inventory Reporting Date:	December 2008			
Waste Matrix Used:	CHILECLASS			
Description:	SEGEDRA is organized under Chilean Commission for Nuclear Energy (CCHEN) and it is charged with the processing research and developing, as also the operations for collection, treatment, conditioning and storage of all radioactive waste produced in the country due to its own nuclear development which is solely for peaceful purposes. UGDR centralizes its activities in the Metropolitan Region of Santiago, to give the service to all radioactive waste producers in the country.			
Site Name	Facility Name	Facilities Defined		
CEN LA	IADRA		storage	
	PTDR	processing		
CEN LR	Caseta LR		storage	
	PozoLR		storage	

## Site (Structure) : CEN LA

Country: CHILE

Reporting Year: 2008

Full Name: Centro de Estudios Nucleares Lo Aguirre

Description:

Official Website:

License Holder(s):

Owner:Comision Chilena de Energia Nuclear  
Casilla 188-D  
Santiago, Chile  
Facility operator: Radioactive Waste Management Section / Fernando Lopez Lizana,  
CCHEN's Legal representative  
Executive Director,  
Casilla 188-D, Santiago, Chile

Owner:Comision Chilena de Energia Nuclear  
Casilla 188-D  
Santiago, Chile  
Facility operator: Radioactive Waste Management Section / Fernando Lopez Lizana,  
CCHEN's Legal representative  
Executive Director,  
Casilla 188-D, Santiago, Chile

Waste management facilities that are located at this site:

<b>Facility:</b>	<b>IADRA</b>					
<b>Description:</b>	Instalacion de Almacenamiento de Desechos Radiactivos Acondicionados					
<b>Storage part of facility IADRA</b>						
The following shows storage status for waste classes and SRS.						
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>				
CATEGORY 1	Yes	Yes				
CATEGORY 2	Yes	Yes				
<b>List SRS?</b>	Yes					
<b>List UMMT?</b>	No					
<b>Capacity:</b>	It was designed to stand conditioned waste packages stored for disposal. Capacity: 42 m3. The actual remaining capacity is app 4 m3					
<b>Types of Storage Units</b>						
<b>Storage Unit Name</b>	<b>Type Name</b>	<b>Year Opened</b>	<b>Closed?</b>	<b>Full?</b>	<b>Modular?</b>	<b>Contains SRS?</b>
IADRA	building	1990	No	No	No	Yes

## Site (Structure) : CEN LA

Country: CHILE

Reporting Year: 2008

<b>Facility:</b>	<b>PTDR</b>									
<b>Description:</b>	Planta de Tratamiento de Desechos Radiactivos, where spent sealed sources, compactible waste, heterogeneous and liquid waste are processed.									
<b>Processing part of facility</b> <b>PTDR</b>										
The following shows processing status for waste classes and SRS.										
<table border="1"><thead><tr><th>Waste Class</th><th>Actual</th><th>Planned</th></tr></thead><tbody><tr><td>CATEGORY 1</td><td>No</td><td>No</td></tr><tr><td>CATEGORY 2</td><td>No</td><td>No</td></tr></tbody></table>	Waste Class	Actual	Planned	CATEGORY 1	No	No	CATEGORY 2	No	No	
Waste Class	Actual	Planned								
CATEGORY 1	No	No								
CATEGORY 2	No	No								
<b>Type:</b>	Treatment, Conditioning									
<b>Year opened:</b>	1992									

## Site (Data) : CEN LA

Stock of waste as at December 2008

Country: CHILE

Reporting Year: 2008

Site Name: CEN LA

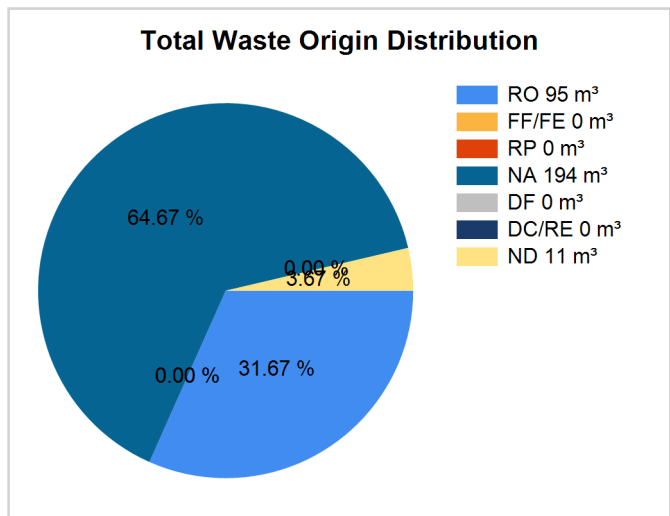
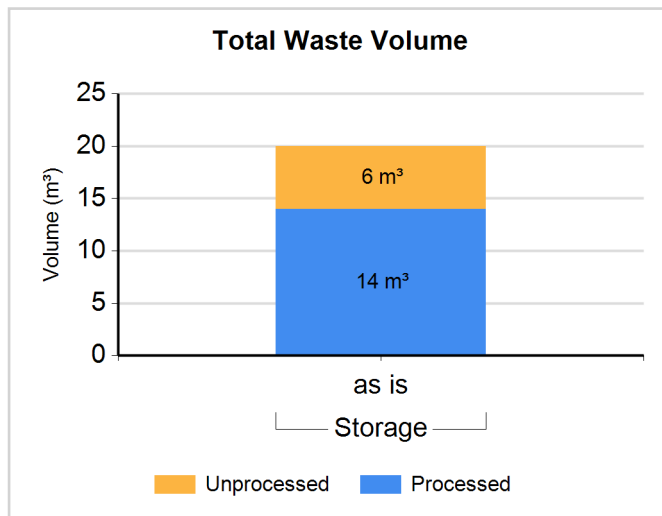
Full Name: Centro de Estudios Nucleares Lo Aguirre

Inventory Reporting Date: December 2008

Waste Matrix Used: CHILECLASS

## 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 1

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 1	Storage / IADRA	Y	N	8.000	8.000	0.00	0.00	0.00	89.00	0.00	0.00	11.00

## Waste Class: CATEGORY 2

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 2	Storage / IADRA	N	N	6.000	6.000	95.00	0.00	0.00	5.00	0.00	0.00	0.00
CATEGORY 2	Storage / IADRA	Y	N	6.000	6.000	0.00	0.00	0.00	100.00	0.00	0.00	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	Decrease	N
Shredding	N	N	Same	N
Size Reduction	N	N	Increase	N

## Site (Data) : CEN LA

Stock of waste as at December 2008

Country: CHILE

Reporting Year: 2008

## 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
Containerization	N	N	Same	N
Encapsulation	N	N	Decrease	N

## Spent Sources &lt;=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					
Cd-109	1			N	Y	N	4.000E-004	2000.12
	4.000E-004							
Cm-244		1		N	Y	N	8.800E+000	2004.12
		8.800E+000						
Co-60		9		N	Y	N	1.300E+005	2003.12
		1.300E+005						
Co-60	8			Y	N	N	4.100E+000	2006.12
	4.100E+000							
Co-60	18	1		Y	N	N	9.100E+000	2007.12
	1.700E+000	7.400E+000						
Co-60			2	Y	N	N	9.100E+012	2008.12
			9.100E+012					
Co-60		3		Y	N	N	5.500E+004	2004.12
		5.500E+004						
Cs-137	6			Y	N	N	6.800E+000	2004.12
	6.800E+000							
Cs-137		4		Y	N	N	4.400E+001	2004.12
		4.400E+001						
Cs-137	38			Y	N	N	5.900E+000	2005.12
	5.900E+000							

## Site (Data) : CEN LA

Stock of waste as at December 2008

Country: CHILE

Reporting Year: 2008

Cs-137	159	14		Y	N	N	1.920E+002	2003.12
	8.200E+001	1.100E+002						
Cs-137	14	13		N	Y	N	4.160E+002	2003.12
	3.600E+001	3.800E+002						
Cs-137	34	7		Y	N	N	1.860E+002	2006.12
	4.600E+001	1.400E+002						
Cs-137	44			Y	N	N	6.200E+001	2007.12
	6.200E+001							
Fe-55	2			N	Y	N	5.000E-001	2003.12
	5.000E-001							
Kr-85	1			N	Y	N	5.500E-004	2005.12
	5.500E-004							
Pm-147	1			N	Y	N	1.500E+000	2004.12
	1.500E+000							
Sr-90	10			N	Y	N	4.000E+000	2000.12
	4.000E+000							



## Site (Data) : CEN LA

Stock of waste as at December 2008

Country: CHILE

Reporting Year: 2008

**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	25		Y	N	N	3.000E+001	2000.12
	3.000E+001						
Am-241	1		N	Y	N	1.850E+000	2004.12
	1.850E+000						
Am-241		1	N	Y	N	3.700E+000	2004.12
		3.700E+000					
Am-241	1		N	Y	N	1.850E+000	2004.12
	1.850E+000						
Am-241	2		N	Y	N	3.600E+000	2005.12
	3.600E+000						
Pu-238	1		N	Y	N	1.100E+000	2003.12
	1.100E+000						
Pu-238		1	N	Y	N	3.700E+000	2004.12
		3.700E+000					
Pu-238	1		N	Y	N	8.500E-001	2005.12
	8.500E-001						
Ra-226	2		N	Y	N	5.550E-004	2005.12
	5.550E-004						
Ra-226	319		Y	N	N	7.800E+001	2000.12
	7.800E+001						
Ra-226	253		Y	N	N	2.000E+001	2005.12
	2.000E+001						
Ra-226	2		N	Y	N	3.400E-001	2003.12
	3.400E-001						

## Site (Structure) : CEN LR

Country: CHILE

Reporting Year: 2008

Full Name: Centro de Estudios Nucleares La Reina

Description:

Official Website:

License Holder(s): Fernando Lopez Lizana, CCHEN's Legal representative  
 Casilla 188-D Santiago, Chile / Owner: Chilean Commission for Nuclear Energy (CCHEN)  
 Waste operating: Radioactive Waste Management Section

Fernando Lopez Lizana, CCHEN's Legal representative  
 Casilla 188-D Santiago, Chile / Owner: Chilean Commission for Nuclear Energy (CCHEN)  
 Waste operating: Radioactive Waste Management Section

Waste management facilities that are located at this site:

<b>Facility:</b>	<b>Caseta LR</b>					
<b>Description:</b>	Instalacion de almacenamiento de desechos no acondicionados. (En espera de tratamiento t1/2 > 100 dias; y en decaimiento t1/2 <100 dias)					
<b>Storage part of facility Caseta LR</b>						
The following shows storage status for waste classes and SRS.						
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>				
CATEGORY 1	No	No				
CATEGORY 2	No	No				
<b>List SRS?</b>	No					
<b>List UMMT?</b>	No					
<b>Capacity:</b>	This facility is an interim storage for decay. Waste in this facility are those from laboratories and radioisotope production, which decay in a very short time.					
<b>Types of Storage Units</b>						
<b>Storage Unit Name</b>	<b>Type Name</b>	<b>Year Opened</b>	<b>Closed?</b>	<b>Full?</b>	<b>Modular?</b>	<b>Contains SRS?</b>
Caseta LR	building	1977	No	No	No	No

## Site (Structure) : CEN LR

Country: CHILE

Reporting Year: 2008

<b>Facility:</b>	<b>PozoLR</b>					
<b>Description:</b>	Concrete room under ground (Pozo subterráneo de concreto) where ion exchange resins from Research reactor are stored (containerized)					
<b>Storage part of facility</b>		<b>PozoLR</b>				
The following shows storage status for waste classes and SRS.						
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>				
CATEGORY 1	No	No				
CATEGORY 2	No	No				
<b>List SRS?</b>	No					
<b>List UMMT?</b>	No					
<b>Capacity:</b>	Capacity is 10 m3 - Interim storage.					
<b>Types of Storage Units</b>						
<b>Storage Unit Name</b>	<b>Type Name</b>	<b>Year Opened</b>	<b>Closed?</b>	<b>Full?</b>	<b>Modular?</b>	<b>Contains SRS?</b>
Pozo LR	trench (lined)	1979	No	Yes	No	No

## Regulators

Country: CHILE

Reporting Year: 2008

<b>Name:</b>	<b>C.Ch.E.N.</b>
Full Name:	Chilean Comission for Nuclear Energy
Divison:	Radiological & Nuclear Safety Department
City or Town:	Santiago de Chile
Main Website:	

Comment # 14633: Regulator C.Ch.E.N.

The only organization that counts with facilities and procedures authorized for radioactive waste management in Chile is the Radioactive Waste Management Section which belongs and operates under Chilean Comission for Nuclear Energy. The radioactive waste management is centralized in this organization.

## Regulations / Laws

Country: CHILE

Reporting Year: 2008

<b>Name:</b>	<b>Law 18.302</b>		
Title or Name:	Ley de Seguridad Nuclear N° 18.302 (Nuclear safety Law N° 18.302)		
Reference Number:	Law N° 18.302		
Date Promulgated or Proclaimed:	5/2/1984	Law	

Comment **# 231: Definition**

Nuclear safety law defines Radioactive waste as all radioactive materials obtained while production process or use of nuclear fuel, or, materials whose radioactivity arises from the radiation exposure of the process, the radioisotopes which have become to final step in its elaboration, are going to be rejected.

Also, the Law defines radioactive material as every material that has an specific activity higher than 0.002 microCi per gram.

Comment **# 232: Waste Definition**

Nuclear safety law defines Radioactive waste as all radioactive materials obtained while production process or use of nuclear fuel; or, materials whose radioactivity arises from the radiation exposure of the process; and the radioisotopes which have become to final step in its elaboration, which are going to be rejected, being responsibility of the owner.

Also, the Law defines radioactive material as every material that has an specific activity higher than 0.002 microCi per gram.

<b>Name:</b>	<b>DS 133/84</b>		
Title or Name:	Reglamento sobre autorizaciones para instalaciones radiactivas o equipos generadores de radiaciones ionizantes y personal que se desempeña en ellas, u opere tales equipos u otras actividades afines. (Regulation on authorization for radioactive facilities or ionizing radiation generation equipments and people working there, or who operate those equipments and other related activities).		
Reference Number:	Regl. N° 133		
Date Promulgated or Proclaimed:	5/22/1984	Regulation	

Comment **# 237: Authorization**

The Regulation establishes conditions and requirements that radioactive facilities or ionizing radiation generation equipmentsand .... have to comply with regard to importing, exporting, distribution and sale of radioactive materials used or maintained at radioactive facilities or at ionizing radiation generation equipments and the reject of radioactive materials" it says:

:"

## TITULO I

## Disposiciones Generales

Artículo 1.- El presente reglamento establece las condiciones y requisitos que deben cumplir las instalaciones radiactivas o los equipos generadores de radiaciones ionizantes, el personal que se desempeñe en ellas u opere estos equipos, la importación, exportación, distribución y venta de las sustancias radiactivas que se utilicen o mantengan en las instalaciones radiactivas o en los equipos generadores de radiaciones ionizantes y el abandono o desecho de sustancias radiactivas. "

<b>Name:</b>	<b>DFL 725</b>		
Title or Name:	Código sanitario (Health Officer Code)		
Reference Number:	DFL N° 725		
Date Promulgated or Proclaimed:	1/31/1968	Regulation	

Comment **# 248: Rad. materials**

This Decret covers radioactive facilities in which radioactive materials are processed, treated, handled, stored.

## Regulations / Laws

Country: CHILE

Reporting Year: 2008

<b>Name:</b>	<b>Law 19.300</b>		
Title or Name:	Ley de bases del medioambiente. (Environmental Basic Law)		
Reference Number:	Law N° 19.300		
Date Promulgated or Proclaimed:	4/1/1997	Law	

Comment # 249: Art.10<sup>a</sup>

It defines the activities that can cause damage to environmental and lists what are to be submitted to the environmental impact assessment. It mentions "production, storage, transport, disposal, or reuse of toxic, explosive, radioactive, flammable, corrosives substances.

<b>Name:</b>	<b>Dec.30</b>		
Title or Name:	Reglamento del Sistema de evaluación e impacto ambiental. (Reg. on Environmental assessment Impact)		
Reference Number:	Dec. N° 30		
Date Promulgated or Proclaimed:	4/3/1997	Regulation	

<b>Name:</b>	<b>NCS-DR-01</b>		
Title or Name:	Norma de Seguridad CCHEN : NCS-DR-01 Gestión de desechos radiactivos. (Radioactive waste management. CCHEN safety Standard.		
Reference Number:	NCS-DR-01		
Date Promulgated or Proclaimed:	6/2/1987	Regulation	

<b>Name:</b>	<b>DS 12/85</b>		
Title or Name:	Reglamento para el transporte seguro de materiales radiactivos		
Reference Number:	DS 12/84		
Date Promulgated or Proclaimed:	6/10/1984	Regulation	

<b>Name:</b>	<b>DS 87/84</b>		
Title or Name:	Reglamento protección física de instalaciones nucleares. (Physical protection for nuclear facilities Rule)		
Reference Number:	DS 87/84		
Date Promulgated or Proclaimed:	3/9/1985	Regulation	

## Milestones

Country: CHILE

Reporting Year: 2008

Start Year or Reference Year:	2008	End Year:	
Description of Milestone:			
A National Seminar on Radioactive Waste Management was held in November 2008, with the aim to gather all stakeholders to have the opportunity to discuss on actual situation in this matter and to create awareness on the necessity to establish a sustainable radioactive waste management system in which all waste generators could trust. Draft policy and strategy were presented by CCHEN, and discussed. It has been the first time that different kind of people such as : regulators, authorities, waste generators, waste managers and public has met together to discuss on radioactive waste management, conducted by international experts from IAEA. The Seminar was organized by SEGEDRA with the collaboration of IAEA, through a TC project.			
Start Year or Reference Year:	2007	End Year:	2010
Description of Milestone:			
CCHEN signed an agreement with DOE of USA, to repatriate all SRS whose fabrication origin was USA. In the year 2007, the information of every SRS that were kept waiting conditioning in our Radioactive Waste Management facilities was verified and sent to DOE to prepare the conditioning to be repatriated.			
Start Year or Reference Year:	2007	End Year:	2008
Description of Milestone:			
Preliminary design to construct a a New Centralized Storage Facility is in progress. The projected facility is designed to storage all radioactive low and intermediate radioactive waste generated from nuclear applications in the country, and its operation is estimated to cover at least next 40 years. The design considers all aspect of radiation and industrial safety, physical protection and environmental impact that are needed to comply with in place regulations, and taking account of international recomendations.			
Start Year or Reference Year:	2004	End Year:	2006
Description of Milestone:			
According new safety conditions and necessities to store SSRS containing radioisotopes for which the Conditioning Procedure has not been developed, such as Kr-85, etc., the Radioactive Waste Tratment Plant has been enlarged with a Storage Zone, destined to SRS, and in a separate zone the liquid waste before conditioning are stored in safe conditions.			
Start Year or Reference Year:	2000	End Year:	2000
Description of Milestone:			
An ion exchange Plant (3 columns of ion exchange resin) to reduce liquid waste volume from nuclear research is installed and started up at Radioactive Waste Treatment Plant.			
Start Year or Reference Year:	1999	End Year:	1999
Description of Milestone:			
A segregation and characterization laboratory for exempted waste is built annexed to the Storage Facility for Decay.			

## Milestones

Country: CHILE

Reporting Year: 2008

Start Year or Reference Year:	1997	End Year:	1997
Description of Milestone:			
<p>The Radioactive Waste Treatment Unit (capacity of facilities and personnel) is evaluated by IAEA, to serve as Demonstration Center for methodologies and procedures in the management of radioactive waste from nuclear applications. The first Demonstration Course for Latin America and the Caribbean Region is held in 1997. (4 courses are followed after that).</p> <p>The</p>			
Start Year or Reference Year:	1997	End Year:	1998
Description of Milestone:			
<p>Spent sealed sources, arising from radiotherapy in Chile, containing Radium 226 were conditioned according to "Radium Conditioning Project" supported by IAEA. The Chilean Team was composed by 2 professionals, 2 technicians and 1 superior welder, plus the IAEA's expert. A quantity of 2,5 Ci of Ra-226 (about 500 units) were conditioned in a retrievable way.</p>			
Start Year or Reference Year:	1996	End Year:	1996
Description of Milestone:			
<p>A modification and enlargement of the Radioactive Waste Treatment Plant for the treatment of radioactive liquid waste is built.</p>			
Start Year or Reference Year:	1992	End Year:	1992
Description of Milestone:			
<p>A Radioactive Waste Treatment Plant is built and started up. Low and intermediate activity waste are processed: spent sealed sources and solid waste. (volume reduction, immobilization in cements and conditioned).</p>			
Start Year or Reference Year:	1990	End Year:	1990
Description of Milestone:			
<p>The Radioactive Waste Management Unit is created under the Chilean Commission for Nuclear Energy organization, with the purpose of centralizing all activities related to radioactive waste management in the country.</p>			
Start Year or Reference Year:	1989	End Year:	1989
Description of Milestone:			
<p>A Storage building (on surface) for conditioned radioactive waste is finished. It is a concrete and steel building, with internal structures to stand 200 l drums in a horizontal way.</p>			



## Policies

Country: CHILE

Reporting Year: 2008

## National Systems

<b>Policy</b>		<b>(Yes;Partially;No)</b>
Q14	Has your Country implemented a national policy for radioactive waste management?	Partially
<b>Strategies</b>		<b>(Yes;Partially;No)</b>
Q15	Has your country developed strategies to implement a national policy?	Partially
<b>Requirements</b>		<b>(Yes;Partially;No)</b>
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	Yes
Q19	implemented a mechanism to identify existing and anticipated radioactive wastes	Partially
Q20	implemented controls over radioactive waste generation	Partially
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	Partially
Q23	implemented appropriate research and development to support the operational and regulatory needs	Partially
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	Partially
<b>Responsibilities</b>		<b>(Complete;Incomplete)</b>
Q28	establish and implement a legal framework for the management of radioactive waste	Incomplete
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	Incomplete
Q33	enforce compliance with regulatory requirements	Incomplete
Q34	implement the licensing process	Complete
Q35	advise the government	Incomplete
Q37	identify an acceptable destination for the radioactive waste	Complete
Q114	comply with legal requirements	Complete

## Policies

Country: CHILE

Reporting Year: 2008

<b>Activities</b>		<b>(Yes;Partially;No)</b>
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
<b>Clearance</b>		<b>(Yes;No)</b>
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)?	Yes
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: CHILE

Reporting Year: 2008

## 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 - 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)?	Yes - All
Operation		(Yes - All;Yes - Some;No)
Q60	Does your Country have formal, documented waste acceptance criteria for its operating or proposed disposal facilities?	Yes - Some
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: CHILE

Reporting Year: 2008

**Processing/Storage**

<b>Policies/Procedures</b>		<b>(Yes;No)</b>
Q73	waste sorting/segregation	Yes
Q74	waste minimization	No
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)	No
<b>Implementation</b>		<b>(Yes;No)</b>
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?	Yes
<b>Foreign</b>		<b>(Yes;No)</b>
Q121	Has your country sent any wastes or spent fuel to another country for processing (reprocessing for fuel)?	No
Q124	Has your country accepted any wastes or spent fuel from another country for processing (reprocessing for fuel)?	No

## Policies

Country: CHILE

Reporting Year: 2008

**Spent/Disused SRS**

<b>Registration</b>		<b>(Yes;No)</b>
Q84	Is there a national level registry?	No
Q87	Are there regional-level registries (one or more)?	No
Q90	Are there local-level registries (one or more)?	Yes
Q115	If the answer was yes, are any registries used only for disused/spent SRS?	Yes

<b>Procedures</b>		<b>(Yes;No)</b>
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?	No

<b>Agreements</b>		<b>(Yes;No)</b>
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

<b>Release / Disposal</b>		<b>(Yes;No)</b>
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?	Yes
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**

<b>Radioactive Waste</b>		<b>(Yes;No)</b>
Q104	Does your Country have laws or Regulations restricting either the import or export of radioactive waste (excluding spent fuel)?	Yes

<b>Spent Fuel</b>		<b>(Yes;No)</b>
Q105	Does your Country have laws or Regulations restricting either the import or export of spent fuel?	No

Country: CHILE

Reporting Year: 2008

**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

## Future Outlook

Country: CHILE

Reporting Year: 2008

**Data not available.**

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Reporting Year: 2008

**Data not available.**



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