

Site (Structure) : CNA I

Country: ARGENTINA

Reporting Year: 2011

Full Name: CENTRAL NUCLEAR ATUCHA I
ATUCHA I NUCLEAR POWER PLANT

Description: Atucha I Nuclear power plant has an installed power capacity of 357 MW(e).
It is located on Paraná river shore, in Lima, Buenos Aires Province.

Official Website:

License Holder(s): Ing. Luis Enrique Olivieri
Since July 2010

Comment # 25544:

Atucha I works with a Siemens pressure vessel reactor (PHWR), uses heavy water as moderator and coolant and natural or poorly enriched (up to 0.85%) Uranium.

Waste management facilities that are located at this site:

Facility:	CEMENT	
Description:	The purpose of this facility is to immobilize by cementation the evaporator concentrate, the tank cleaning sludge, liquid wastes from decontamination, and non-compactable and structural solid wastes.	
Processing part of facility	CEMENT	
The following shows processing status for waste classes and SRS.		
Waste Class	Actual	Planned
VLLW	No	No
LLW	Yes	No
ILW	No	No
HLW	No	No
Type:	Conditioning	
Year opened:	1992	
Comment	# 9937: CEMENTACIÓN	
The facility was designed only for low-level wastes. It includes storage and feeding tanks, having a homogenization and sampling system of liquid and sludge waste to be cemented. The immobilization system comprises a reusable blade vertical mixer that allows liquid waste in-drum cementation.		

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Facility:	COMPACTOR		
Description:	The Compaction System comprises a 16 t hydraulic press, installed on a bay located in the controlled zone inside the reactor building. Compactable solid wastes are collected in plastic bags and compacted in 200 liter drums.		
Processing part of facility		COMPACTOR	
The following shows processing status for waste classes and SRS.			
Waste Class	Actual	Planned	
VLLW	No	No	
LLW	Yes	No	
ILW	No	No	
HLW	No	No	
Type:	Treatment, Conditioning		
Year opened:	1974		

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Facility:	DRUMS
Description:	This facility located inside Atucha I nuclear power plant is used to store 200 liters drums with treated and conditioned solid and liquid low level radioactive waste.

Storage part of facility**DRUMS**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
VLLW	No	No
LLW	Yes	No
ILW	No	No
HLW	No	No

List SRS?	No
List UMMT?	No

Capacity:	
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Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
DRUMS	building	0	No	No	No	No

Comment **# 9932: ALMACENAMIENTO DE TAMBORES**

The following waste types are stored in this facility:

- a) Concentrates and sludge from the cleanup of tanks are immobilized in cement matrices and conditioned in 200-liter drums.
 b) The treatment of compactable solid radioactive waste generated in the operation and maintenance activities, consists of reducing the waste volume by compressing it into 200-liter drums. c) Non-compactable solid waste that are immobilized in cement matrixes and conditioned in 200-liter drums.

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Facility:	EVAPORATOR
Description:	A Decanting/Separator System is used to separate residual waters from solids suspended in the liquid. The system makes the necessary controls to convey the residual waters to the discharge system or to the concentration by evaporation system.

Processing part of facility EVAPORATOR

The following shows processing status for waste classes and SRS.

Waste Class	Actual	Planned
VLLW	No	No
LLW	Yes	No
ILW	No	No
HLW	No	No

Type:	Treatment
Year opened:	1974

Comment # 9936: EVAPORADOR

Purified water is collected in control tanks where its activity concentration is checked. If the value is lower than the limits set forth in the Operating license, the liquids are eliminated as controlled and scheduled radioactive discharges into the Paraná de las Palmas River. If the value is higher than the permitted limit, the water is returned to the collecting tanks for evaporation treatment.

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Facility:	FILTERS
Description:	It is an underground storage used to store spent mechanical filters from the primary circuit of the reactor.

Storage part of facility FILTERS

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
VLLW	No	No
LLW	Yes	No
ILW	No	No
HLW	No	No

List SRS?	No
List UMMT?	No

Capacity:	There are 8 pits of 3 m3 each one.
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Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
FILTERS	pit	1974	No	No	Yes	No

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Facility:	RESINS 1
Description:	Spent ion exchange resin beds from the primary system of water cooling purification are stored in tanks inside Atucha I nuclear power plant.

Storage part of facility**RESINS 1**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
VLLW	No	No
LLW	Yes	No
ILW	No	No
HLW	No	No

List SRS?	No
List UMMT?	No

Capacity:	There are four tanks, two of 15 m3 and two of 9 m3.
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Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
RESINS 1	tank (stainless steel)	1974	No	No	Yes	No

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Facility:	RESINS 2
Description:	This facility has been used to free the tanks with spent ion exchange resin beds.

Storage part of facility**RESINS 2**

The following shows storage status for waste classes and SRS.

Waste Class	Actual	Planned
VLLW	No	No
LLW	Yes	No
ILW	No	No
HLW	No	No

List SRS?	No
List UMMT?	No

Capacity:	This facility has a capacity of 46 m3
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Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
RESINS 2	well	1974	No	No	No	No

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Facility:	TR SYSTEM		
Description:	The function of the System (TR) is to collect all residual waters produced in the controlled area. The system includes four 10 m3 tanks located in the reactor building.		
Processing part of facility		TR SYSTEM	
The following shows processing status for waste classes and SRS.			
Waste Class	Actual	Planned	
VLLW	No	No	
LLW	Yes	No	
ILW	No	No	
HLW	No	No	
Type:	Treatment		
Year opened:	1974		