

## Site (Structure) : CNA I

Country: ARGENTINA

Reporting Year: 2005

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

Description:

Official Website:

License Holder(s): MANUEL GUALA  
Until September 2005 / OSVALDO PENNACCHIETTI  
Since October 2005  
MANUEL GUALA  
Until September 2005 / OSVALDO PENNACCHIETTI  
Since October 2005

Comment # 9926: CNA I Nuclear Power Plant

Atucha I Nuclear power plant (PHWR type) has an installed power capacity of 357 MW(e).

Waste management facilities that are located at this site:

<b>Facility:</b>	<b>CEMENT</b>												
<b>Description:</b>	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.												
<p><b>Processing part of facility                      CEMENT</b></p> <p>The following shows processing 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>LILW-SL</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>LILW-LL</td> <td>No</td> <td>No</td> </tr> <tr> <td>HLW</td> <td>No</td> <td>No</td> </tr> </tbody> </table>		Waste Class	Actual	Planned	LILW-SL	Yes	Yes	LILW-LL	No	No	HLW	No	No
Waste Class	Actual	Planned											
LILW-SL	Yes	Yes											
LILW-LL	No	No											
HLW	No	No											
<b>Type:</b>	Conditioning												
<b>Year opened:</b>	1992												
<b>Comment</b>	<b># 9937: Processing Facility CEMENT</b>												
<p>The facility is 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.</p>													

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<b>Facility:</b>	<b>COMPACTOR</b>		
<b>Description:</b>	The Compaction System comprises a 16 t hydraulic press, installed in 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.		
<b>Processing part of facility</b>	<b>COMPACTOR</b>		
The following shows processing status for waste classes and SRS.			
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>	
LILW-SL	Yes	Yes	
LILW-LL	No	No	
HLW	No	No	
<b>Type:</b>	Treatment, Conditioning		
<b>Year opened:</b>	1974		

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<b>Facility:</b>	<b>DRUMS</b>
<b>Description:</b>	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
LILW-SL	Yes	Yes
LILW-LL	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: Storage Facility DRUMS**

The following waste types are stored in this facility:

Concentrates and sludge from the cleanup of tanks are immobilized in cement matrices and conditioned in 200-liter drums.

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.

Non-compactable solid waste that are immobilized in cement matrixes and conditioned in 200-liter drums.

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<b>Facility:</b>	<b>EVAPORATOR</b>
<b>Description:</b>	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
LILW-SL	Yes	Yes
LILW-LL	No	No
HLW	No	No

<b>Type:</b>	Treatment
<b>Year opened:</b>	1974

**Comment                      # 9936: Processing Facility EVAPORATOR**

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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<b>Facility:</b>	<b>FILTERS</b>					
<b>Description:</b>	It is an underground storage used to store spent mechanical filters from the primary circuit of the reactor.					
<b>Storage part of facility</b>		<b>FILTERS</b>				
The following shows storage status for waste classes and SRS.						
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>				
LILW-SL	Yes	Yes				
LILW-LL	No	No				
HLW	No	No				
<b>List SRS?</b>	No					
<b>List UMMT?</b>	No					
<b>Capacity:</b>	There are 8 pits of 3 m3 each one.					
<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>
FILTERS	pit	1974	No	No	Yes	No

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<b>Facility:</b>	<b>RESINS 1</b>					
<b>Description:</b>	Spent ion exchange resin beds from the primary system of water cooling purification are stored in tanks inside Atucha I nuclear power plant					
<b>Storage part of facility</b>		<b>RESINS 1</b>				
The following shows storage status for waste classes and SRS.						
<b>Waste Class</b>	<b>Actual</b>	<b>Planned</b>				
LILW-SL	Yes	Yes				
LILW-LL	No	No				
HLW	No	No				
<b>List SRS?</b>	No					
<b>List UMMT?</b>	No					
<b>Capacity:</b>	There are four tanks, two of 15 m3 and two of 9 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>
RESINS 1	tank (stainless steel)	1974	No	No	Yes	No

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<b>Facility:</b>	<b>RESINS 2</b>
<b>Description:</b>	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
LILW-SL	Yes	Yes
LILW-LL	No	No
HLW	No	No

List SRS?	No
List UMMT?	No

<b>Capacity:</b>	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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<b>Facility:</b>	<b>TR SYSTEM</b>														
<b>Description:</b>	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.														
<p><b>Processing part of facility                      TR SYSTEM</b></p> <p>The following shows processing 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>LILW-SL</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>LILW-LL</td> <td>No</td> <td>No</td> </tr> <tr> <td>HLW</td> <td>No</td> <td>No</td> </tr> </tbody> </table>				Waste Class	Actual	Planned	LILW-SL	Yes	Yes	LILW-LL	No	No	HLW	No	No
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HLW	No	No													
<b>Type:</b>	Treatment														
<b>Year opened:</b>	1974														