

Site (Structure) : CNE

Country: ARGENTINA

Reporting Year: 2011

Full Name: CENTRAL NUCLEAR EMBALSE
EMBALSE NUCLEAR POWER PLANT

Description: Embalse Nuclear Power Plant has an installed capacity of 648 MWe. It is located on the southern shore of Rio Tercero river, in Cordoba province.

Official Website:

License Holder(s): Ing. Gustavo Ernesto Montanari
Since July 2010

Comment # 25545:

Embalse works with a CANDU type reactor (lark type with pressure tubes), uses heavy water as moderator and coolant. It burns natural uranium.

Waste management facilities that are located at this site:

Facility:	COMPACTOR																
Description:	There is an area in the reactor building controlled zone housing with a 16-ton capacity hydraulic press.																
<p>Processing part of facility COMPACTOR</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>VLLW</td> <td>No</td> <td>No</td> </tr> <tr> <td>LLW</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>ILW</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	VLLW	No	No	LLW	Yes	No	ILW	No	No	HLW	No	No
Waste Class	Actual	Planned															
VLLW	No	No															
LLW	Yes	No															
ILW	No	No															
HLW	No	No															
Type:	Treatment																
Year opened:	1984																

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Facility:	DRUMS
Description:	This facility located inside Embalse nuclear power plant is used to store 200 liters drums.

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	1995	No	No	No	No

Comment **# 9933: DRUMS STORAGE**

Treatment and conditioning practices, such as compacting of solid compactable wastes and immobilization in cement matrixes of non-compactable solids are performed at Embalse Nuclear Power Plant.

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Facility:	FILTERS
Description:	Storage for the spent filters generated in the nuclear power plant along the whole life cycle.

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:	The storage facility for purification filters is located in an approximately 50 m x 50 m elevated area located some 250 meters from the service building.
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Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
FILTERS	building	1984	No	No	No	No

Comment **# 9938: ALMACENAMIENTO DE FILTROS**

Underground containment structures include concrete cubicles and cylindrical pits with steel lined concrete walls. The drainage characteristics of the elevated facility are such that the level of the lowest points of the storage cubicles are above the estimated highest level of the groundwater table.

Concrete storage cubicles are divided into separate cells where low-level wastes are stored. Cylindrical vertical cavities (i.e., boreholes) are used to store intermediate-level waste purification mechanical filters.

The original design comprises a concrete cubicle made of five aligned cells with a depth of 3 m and a cross section of 3 m x 3 m, and five concrete cylindrical pits with a diameter of 1 m and a depth of 4.4 m. The capacity is adequate to contain all solid radioactive wastes produced during the power plant useful life. Nevertheless, the facility allows expansion of the concrete containment structures to store all solid radioactive wastes that could be additionally generated.

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Facility:	RESINS
Description:	Spent ion exchange resin beds are stored in tanks.

Storage part of facility**RESINS**

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 two tanks of 260 m3 each one.
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Types of Storage Units

Storage Unit Name	Type Name	Year Opened	Closed?	Full?	Modular?	Contains SRS?
RESINS	tank (concrete)	1984	No	No	Yes	No

Comment **# 9934: ALMACENAMIENTO DE RESINAS**

At CNE, liquid radioactive waste originating in the operation and maintenance activities are treated by ion exchange resin beds, with subsequent discharge into the environment of the treated effluent.