

Desalting Completed at Unit 3 Spent Fuel Pool at Fukushima Daiichi Nuclear Power Station

<Reference >
 March 18, 2013
 Tokyo Electric Power Company

1. Work Implemented Towards the Completion of Unit 3 Spent Fuel Pool Desalting

	2011											2012											2013		
	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Unit 3	Earthquake (March 11, 2011)																								
	Seawater injection (March 17, 19, 20, 22, 23, 24, 25 and 27, 2011)																								
	Switched to freshwater (From March 29, 2011)																								
	Started hydrazine injection (From May 9, 2011)																								
	Started circulation cooling of the spent fuel pool (From June 30, 2011)																								
	<div style="background-color: black; width: 100%; height: 1em; margin-bottom: 5px;"></div> Removal of radioactive materials in the pool (January 14 to March 1, 2012)																								
	Desalting by the reverse osmosis membrane (RO) system (April 11 to July 11, 2011) <div style="background-color: black; width: 100%; height: 1em; margin-top: 5px;"></div>																								
Desalting by the ion exchanger (July 12 to August 27, 2012) <div style="background-color: black; width: 100%; height: 1em; margin-top: 5px;"></div>																									
Desalting by the mobile reverse osmosis membrane (RO) system (September 22, 2012 to March 18, 2013) <div style="background-color: black; width: 100%; height: 1em; margin-top: 5px;"></div>																									



Circulation cooling equipment for the spent fuel pool



Reverse osmosis membrane (RO) system used for desalting

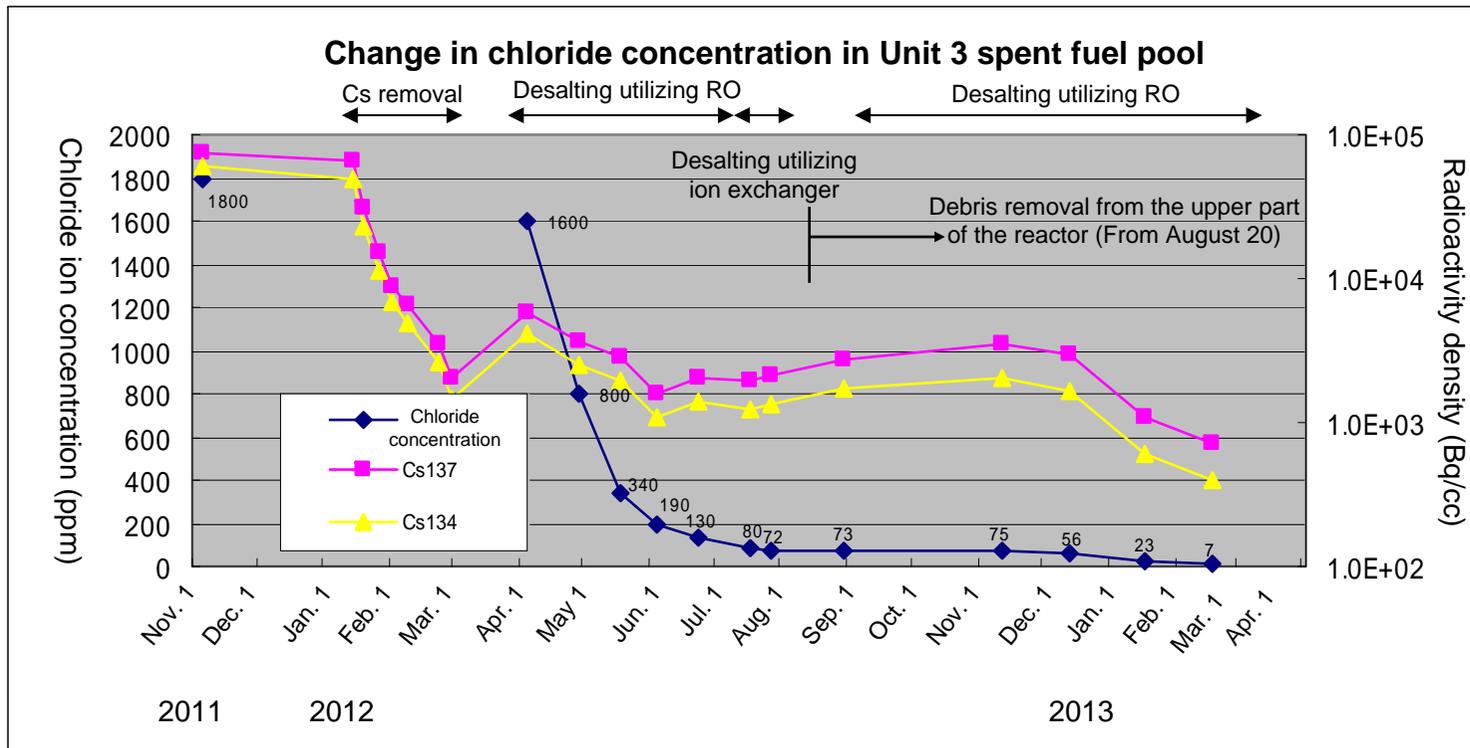


Mobile RO system used for desalting

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2. Change in Unit 3 spent fuel pool chloride concentration

- From January 14, 2012, dose reduction was implemented utilizing Cs adsorption towers as preparation for desalting. From April 11, 2012, desalting utilizing the reverse osmosis membrane (RO) system was started. Though desalting utilizing the ion exchanger was started on July 12, 2012, purification was continued through utilizing the mobile reverse osmosis membrane (RO) system on September 22, 2012 since the dose was comparatively high.
- Today (March 18, 2013), desalting of Unit 3 spent fuel pool has been completed considering that the chloride concentration was sufficiently low (approx. 5ppm) (Maximum limit stipulated by the technical specification: 100ppm).
- Sampling and hydrazine injection will be performed on a regular basis and the ion exchanger, etc. will be used as necessary to maintain good water quality.



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3. Spent Fuel Pool Water Quality Sampling Results (As of March 18, 2013)

Sample	Date	pH	Conductivity	Cl (Chloride ion)	Cs137	Cs134	Remarks
		-	mS/m	ppm	Bq/cc	Bq/cc	
Unit 1	January 23, 2013	8.1	18	6	1.6E+04	7.7E+03	
Unit 2	January 17, 2013	8.8	53	13	1.2E+02	5.4E+01	
Unit 3	March 15, 2013	9.1	17	5	9.1E+02	4.7E+02	
Unit 4	January 22, 2013	8.9	36	57	3.3E+00	1.2E+00	

- As for Units 1-4 spent fuel pools, hydrazine injection is being intermittently performed for the purpose of preventing microorganisms from being generated (effective when the concentration is higher than approx. 10ppm).
- Preparation for purification is being carried out for Unit 4 spent fuel pool since an increase in chloride ion concentration was confirmed which is assumed to be caused by wind and rain.