



[Form 2 (to be reported to Committee on Countermeasures for Contaminated Water Treatment
and to be disclosed to public)]

Technology Information	
Area	<input checked="" type="text" value="2"/> (Select the number from "Areas of Technologies Requested")
Title	2B Make a justification for discharge to sea of water in which Tritium is the main remaining radioactive contaminant
Submitted by	eco-atomic consultants Ltd
1. Overview of Technologies (features, specification, functions, owners, etc.) The current proposal to store water that has been treated to remove radioactive contaminants except tritium so that the tritium can be removed is inconsistent with worldwide practice. Such dilute tritium-containing effluents would normally be discharged to sea. This is because the radiological impact of such discharges is minor and the costs of any recovery or decay storage are far too high to justify. For example, the Sellafield site in the UK has projected discharges of tritium to sea approximately ten times that arising at Fukushima Daichii as part of its routine authorisation. The approach to be adopted would be to construct and ALARP (also called 'ALARA') justification to justify the discharge of the effluent and eliminate the continued accumulation of water storage tanks on the Fukushima Daichii site.	

2. Notes (Please provide following information if possible.)

- *Technology readiness level (including cases of application, not limited to nuclear industry, time line for application)*

Such justifications for discharges are routinely produced in the European context.

- *Challenges*

The need to gain political support for any decision to discharge the tritium could be helped by using stakeholder engagement in parallel with discussions with the Japanese regulators and the government.

- *Others (referential information on patent if any)*

Annual report of Sellafield limited showing annual discharges of tritium often greater than 1000 TBq/year against a discharge authorisation of up to 20,000 TBq/year.

http://www.sellafieldsites.com/wp-content/uploads/2012/08/Sellafield_Report_2011_800K1.pdf