

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

Technology Information	
Area	3
Title	Removal of radioactive materials from the seawater in the harbor
Submitted by	
<p>1. Overview of Technologies (features, specification, functions, owners, etc.)</p> <p>It is envisaged that the composition of the contamination of the sea water within the harbour is a both suspended radionuclide particulate and absorbed particulate in materials such as fungi, sludge etc. Therefore, different process may be required to remove all the elements of contamination.</p> <p>PacTec have developed, designed and manufactured a dewatering filtration system that is compatible with a standard roll-off container. This allows for water and sludge's to be plumed into the container and allowed to drain out, for capture and further treatment. The majority if not all the solids are removed and retained within the filtration matrix, and it even has the capability of removing hydrocarbons and heavy metals. The system is called the DePac.</p> <p>This process has the potential to remove a large amount of contaminants held in sludge's etc, which can be either further treated or disposed of direct from the container.</p> <div style="display: flex; justify-content: space-around;">    </div> <p>The system is designed to be a simple process to install and operate and is a flexible multi-layered design with varying filter mesh options. Utilised with a standard roll-off type of container it provides a cost effective solution for onsite dewatering and filtration together with the onward transportation for treatment or disposal.</p> <p>Additional complete closures can also be provided to provide IP1 containment.</p>	

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

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

- Challenges

- Requires site set up with additional storage for filtered (contaminated) water.

- Others (referential information on patent if any)

- Patents apply

- Perceived Benefits

- Easy on-site removal of contaminated particulate sludge's etc
- DePac container transportable for disposal
- Drained contaminated water can be retained in PacTec's portable PacTank for transport and further treatment.

**【Areas of Technologies Requested】**

- (1) Accumulation of contaminated water (Storage Tanks, etc.)
- (2) Treatment of contaminated water (Tritium, etc.)
- (3) Removal of radioactive materials from the seawater in the harbor
- (4) Management of contaminated water inside the buildings
- (5) Management measures to block groundwater from flowing into the site
- (6) Understanding the groundwater flow