

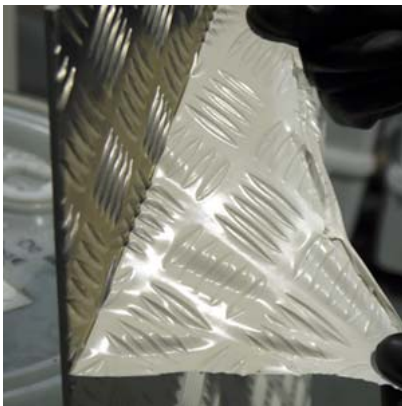
[Form 2 (to be reported to Committee on Countermeasures for Contaminated Water Treatment and to be disclosed to public)]

Technology Information	
Area	1 (Select the number from "Areas of Technologies Requested")
Title	1A Use of Strippable Paint to tie down contamination and to aid later decontamination
Submitted by	Spraylat International Ltd

1. Overview of Technologies (features, specification, functions, owners, etc.)

Strippable paints are thin films of durable material that is applied onto a surface and can later be completely removed by peeling. Despite being peelable, Peelable Coatings generally have good adhesion for services where they are not directly abraded. They can be used to:

- protect the surfaces of new equipment to be used in contact with radioactive substances such as the internal surfaces of your water storage tanks.
- fix loose contamination on surfaces so that it does not become an airborne radiological hazard during work in the area
- partially remove surface contamination by adhesion to the paint film when the film is stripped



(Image source: Spraylat International Ltd)

Peelable Coatings can also provide an impervious barrier and thus help improve leak proof where very small holes or cracks are present in structures.

When used in mode a) above the paint film is applied to the clean equipment before it comes into contact with the radioactive products. The Peelable Coating is usually applied by spray or

roller, however the company has access to PDX Atomisation that is proven to rapidly fill large volumes spaces such as tanks with the coating. The paint forms a durable continuous film such that in normal circumstances the equipment is protected from any contact with the radioactive products such as the water to be stored in a tank. When the equipment is to be withdrawn from service a second coat of paint is applied over the now contaminated paint surface to seal in any surface contamination. Once the second coat is dry, the two coats are peeled off as a single film with the contamination trapped in the sandwich between the paint layers. This leaves the used equipment ready for radiological inspection and potentially for free release as it should have no radioactive contamination.

This technology could be used to protect new tanks from surface contamination when the tanks are used to store contaminated water so that when the tanks are decommissioned they can be re-used for non-radioactive service or scrapped as non-radioactive waste. It could also improve the leak-tightness and corrosion resistance of some existing tanks if used to re-paint their internal surfaces.

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

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

Peelable Coating has been widely used in nuclear maintenance and decommissioning work in the UK for decades. It has been used in the most arduous radiological conditions including inside hot-cells undergoing temporary decontamination and maintenance. The products and case studies are readily available from the manufacturers, Spraylat International Ltd. No special skills are needed in applying the paints although a short training course with the paint manufacturer may be helpful.

- *Challenges*

You may want to seek advice from the manufacturers about the chemical resistance of the paints to strong salt solutions and the predicted life submerged in your contaminated waters. The strippable paint films can last for 12 months exposed to outside weather.

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

Product suppliers:

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