



PORT MARINE CIRCULAR
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Shipping Community
Harbour Craft Community

REQUIREMENTS FOR PROPER DISPOSAL OF RADIOACTIVE WASTE

The National Environment Agency (NEA) has published a circular to remind industry partners on the requirements for proper disposal of radioactive waste in Singapore.

2 The National Environment Agency's, Circular No. RPNSD/IRCS/2019/10-0001, is enclosed as **Appendix 1**.

3 Any queries relating to this circular should be directed in writing to the National Environment Agency officer, Ms WU Su Yuan at Tel: 6708 6226 or Wu_Su_Yuan@nea.gov.sg.

CAPT KEVIN WONG
PORT MASTER
MARITIME AND PORT AUTHORITY OF SINGAPORE

CIRCULAR

Our Ref: RPNSD/IRCS/2019/10-0001

08 October 2019

REQUIREMENTS FOR PROPER DISPOSAL OF RADIOACTIVE WASTE

Applicable to: This circular is for the attention of all Singapore ship owners, ship managers, shipmasters, operators of shipyards, surveyors and the general shipping community.

1 The National Environment Agency (NEA) would like to remind all industry partners that it is an offence to dispose of, accumulate and transport radioactive waste in Singapore without an approval in writing from the Director-General of Environment Protection (DGEP) of NEA. Any person found to have disposed of, accumulated or transported radioactive waste without authorisation is liable on conviction to a fine up to \$50,000 or to imprisonment for a term up to 12 months or to both.

2 While radioactive material installed as part of the equipment of ships are not required to be licensed in Singapore, the material cannot be disposed of in Singapore without authorisation. For enquiries on licensing and authorisation matters, please contact the Radiation Protection and Nuclear Science Department of NEA at NEA_RPNSD_licence@nea.gov.sg.

3 Industry partners should note that Natural Occurring Radioactive Material (NORM) is radioactive material that contains no significant amounts of radionuclides other than those naturally occurring in the environment. NORM residue is material that remains from a process and comprises NORM or is contaminated by NORM. NORM residue can accumulate in piping from tankers that had carried crude oil or petroleum cargo. An accumulation of such residue may result in significantly elevated radionuclide concentration whereby shipyard workers involved in repair works within cargo tanks may be exposed to. Protective measures should be taken to ensure that the radiation exposure to shipyard workers are minimised. Where no further use is foreseen for the crude oil and petroleum containing NORM residue, the disposal of such waste must adhere to Paragraph 1 of this circular.

4 A non-exhaustive list of apparatus containing radioactive materials commonly used by or found in the shipping industry is tabled below for information.

S/N	Name of Apparatus
1	Radioactive level gauges, also commonly known as the following: a) Radioactive level measurement apparatus b) Nuclear level sensors
2	Nuclear moisture gauge, also commonly known as the following:

	a) Nuclear moisture content meter
3	Nuclear density gauge, also commonly known as the following: a) Nuclear densometer
3	Low Specific Activity Scales (LSAs), also commonly known as the following: a) Pipe scales b) NORMs
4	Nuclear borehole probes, also commonly known as the following: a) Dual density + Caliper probe b) Neutron probe c) Gamma density probe
5	Industrial radiotracers

5 For further clarification relating to this circular, please contact Ms WU Su Yuan at 6708 6226 or wu_su_yuan@nea.gov.sg.

Yours faithfully,

Wu Su Yuan
for Senior Director
Radiation Protection and Nuclear Science Department

(This is a computer generated letter. No signature is required)