Carriage of radioactive cargoes

The International Atomic Energy Agency (IAEA) estimates that around 10 million shipments of radioactive materials take place annually, with up to 4 million of these by sea.

The transport of radioactive materials involves a potential radiological hazard. To ensure the safety of people, property and the environment, international and domestic transport regulations are necessary. This article outlines the key requirements.

Introduction
It is imperative when carrying radioactive cargoes that the materials to be transported are declared correctly and that proper cargo documents as stated in the relevant regulations/codes are provided to the ship sufficiently in advance to enable precautions to be put into place. This information includes, but is not limited to, cargo declarations that the information provided is accurate, laboratory test/analysis reports (where practicable) and documentation of relevant hazards posed by the material in order to guide the shipboard team on safe carriage and how to react in case of emergency.

Club cover for Excepted Matters
From the club’s perspective, it is important to ascertain whether the consignment is an ‘Excepted Matter’. The definition of ‘Excepted Matter’ is based on the Nuclear Installations Act 1965 (or any regulations made thereafter) and NOT whether it can be shipped under the IMDG code.

Members are advised that, in accordance with the club’s Rule 4.4 on the carriage of radioactive material, P&I cover extends only to ‘Excepted Matter’ (as defined in the Nuclear Installations Act 1965 of the United Kingdom or any regulations made thereunder), in individual consignments presented for transport on a specific route and vessel, and at a specific time.

When members want to carry a radioactive material, they need to request the club to confirm cover prior to each consignment and send the IMDG code dangerous goods declaration (as listed under para 5.4.1.5.7) for the actual voyage.

It is essential that the precise information on the cargo is provided. For the carriage of empty containers that previously carried radioactive cargo, the club also requires precise details of the radioactive cargoes that were previously carried in the container.
The club then seeks advice from our nuclear expert to confirm whether the subject cargo is Excepted Matter or not. The approval of cover will only be valid for one voyage, and each subsequent voyage will require confirmation of cover again upon viewing the IMDG declaration for the actual shipment.

A blanket approval for cover of carriage of Excepted Matter cannot be given. Each shipment will require a separate and new approval, even if identical to previous shipments.

Other radioactive cargo
If the consignment of radioactive cargo is not Excepted Matter, then it is not covered by P&I Club Rules, and the consignor needs to arrange for nuclear liability insurance and produce a Certificate of Financial Security from the relevant government before the consignment can be transported.

The IMDG code dangerous goods declaration should contain, at least:
- The proper shipping name of the material.
- The UN number of the material.
- The weight of the actual cargo.
- The name of the isotope/radionuclide.
- The radioactivity in Bq for each isotope.
- The form of the material (Special or Normal Form).
- Whether it is in its finished form for use or whether it is a radioactive waste material.