

Insurance for the Transport of Nuclear Material

P&I

The International Group of P&I Clubs



**American Steamship Owners Mutual
Protection and Indemnity
Association, Inc.**
american-club.com

American Club (Europe)



BRITANNIA P&I
INSURANCE ASSOCIATION

**The Britannia Steam Ship Insurance
Association Limited**
britanniapandic.com

The Britannia Steam Ship Insurance Association
Europe



Gard P&I (Bermuda) Limited
gard.io

Assurancekringens Gard (Europe)



**The Japan Ship Owners' Mutual
Protection & Indemnity Association**
jpiclub.or.jp



**The London Steam-Ship Owners'
Mutual Insurance Association Limited**
londonpandic.com

The London P&I Insurance Company (Europe)
Limited



NorthStandard

NorthStandard Limited
north-standard.com

NorthStandard EU DAC (previously named North of
England P&I DAC)
The Standard Club-UK Ltd
The Standard Club-Auto Ltd
The Standard Club-Ireland DAC



SHIPOWNERS

The Shipowners' Mutual Protection & Indemnity Association (Luxembourg)

shipownersclub.com



Assuranceforeningen Skuld (Gjensidig)

skuld.com

Skuld Mutual Protection and Indemnity Association (Bermuda) Ltd.



Steamship Mutual

The Steamship Mutual Underwriting Association (Bermuda) Limited

the-sm-ship-owners.com

Steamship Mutual Underwriting Association Ltd.
Steamship Mutual Underwriting Association (Europe) Limited



Sveriges Ängslarhygs Assurans Förening / The Swedish Club

www.dakalab.com/



The United Kingdom Mutual Steam Ship Assurance Association Limited

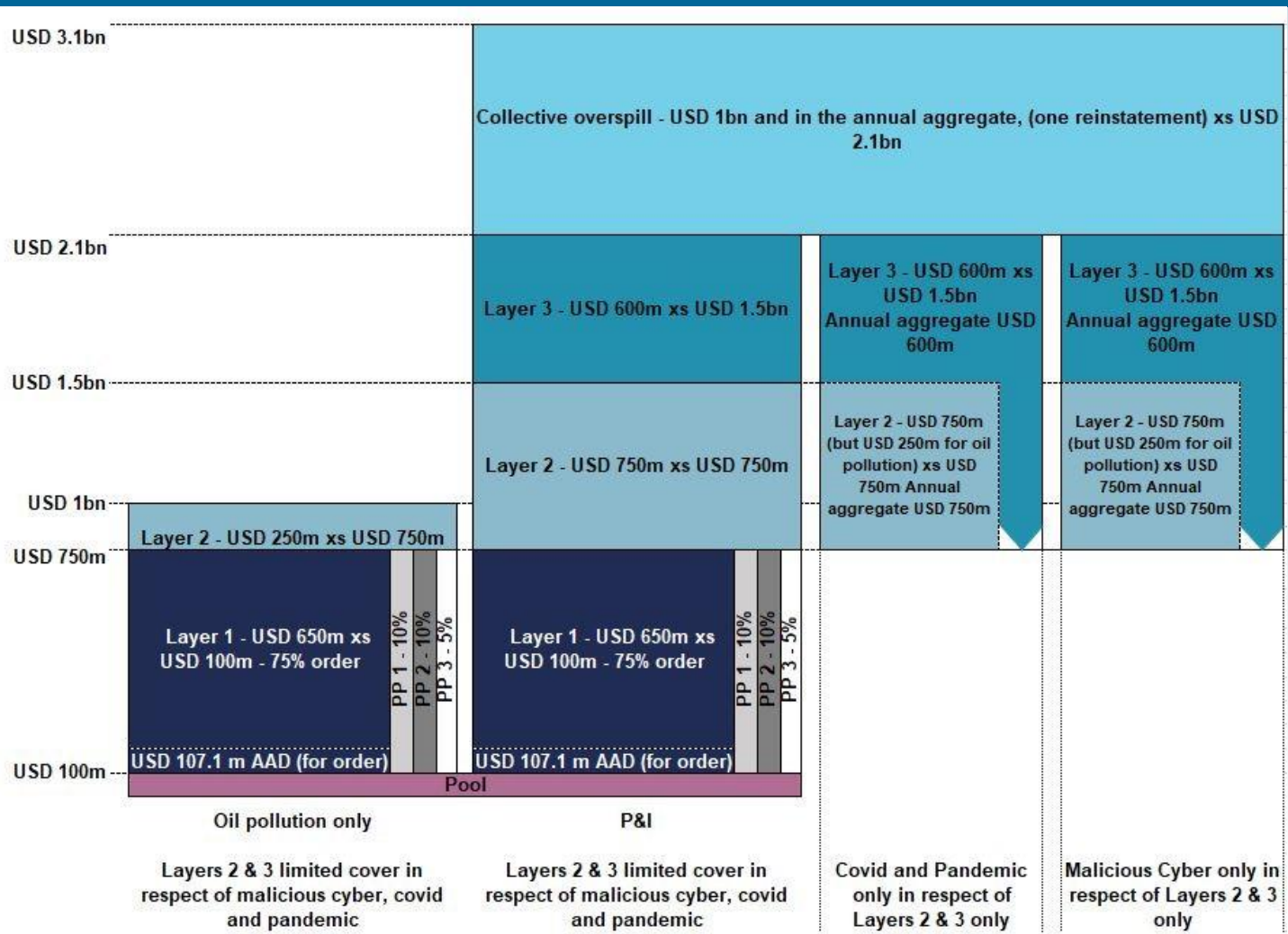
ukp-and-i.com

UKP&I (Bermuda)
UKP&I (UK&I)



The West of England Ship Owners Mutual Insurance Association (Luxembourg)

west-on-dic.com/



Home Insurance

Radioactivity, pollution and contamination

We won't pay for any loss, damage, liability or cost directly or indirectly caused by:

- radiation or contamination from nuclear fuel or nuclear waste or from the burning or explosion of nuclear fuel;
- the radioactive, toxic, explosive, hazardous or contaminating properties of any nuclear installation, reactor, or other nuclear assembly or its component parts;
- any weapon or device using atomic or nuclear fission or fusion or radioactive force or matter.

Relationship to nuclear liability

- Clubs cover shipowners etc
- Nuclear liability conventions exclude club “customers” from any nuclear liability (exclusive and strict liability).
- Where there is no liability it is wrong (illegal?) to sell insurance
- Clubs exclude nuclear liability in their rules
 - How?
- Uncle Tom Cobley nuclear liability conventions
 - Almost all clubs link their nuclear liability rules to UK legislation (in particular the Nuclear Installations Act)
 - Covers multiple conventions
 - Firm legal interpretation

The general principle

If the Paris/Vienna convention exceptions apply then it can be covered by the P&I clubs

- No consideration of non-signatories
- No consideration of other regimes
- No consideration of non-nuclear risks

How is it specified in club rules

- Excludes cover for radioactive (nuclear) damage for consignments that could come under a convention
- Uses UK national law to define consignments that could come under a convention
 - Relevant international agreement
 - Relevant installation
 - Relevant foreign operator

Nuclear matter

“nuclear matter” means, subject to any exceptions which may be prescribed—

- a) any fissile material in the form of uranium metal, alloy or chemical compound (including natural uranium), or of plutonium metal, alloy or chemical compound, and any other fissile material which may be prescribed; and
- b) any radioactive material produced in, or made radioactive by exposure to the radiation incidental to, the process of producing or utilising any such fissile material as aforesaid

Relevant carriage

“**relevant carriage**”, in relation to nuclear matter, means carriage on behalf of—

- a) **a licensee as the licensee of a particular licensed site**; or
 - (aa) an operator of a relevant disposal site; or
- b) the Authority; or
- c) a government department for the purposes of such use of a site by that department as is mentioned in section 9 of this Act; or
- d) **a relevant foreign operator**; or
- e) a person authorised to operate a nuclear reactor which is comprised in a means of transport and in which the nuclear matter in question is intended to be used or was used or was intended to be used;

Relevant foreign operator

“**relevant foreign operator**” means a person who, for the purposes of a **relevant international agreement**, is the operator of a **relevant installation** in a relevant territory other than the United Kingdom;

Relevant international agreement

“**relevant international agreement**” means an international agreement with respect to third-party liability in the field of nuclear energy **to which the United Kingdom or Her Majesty’s Government therein are party**, other than an agreement relating to liability in respect of nuclear reactors comprised in means of transport;

- UK is signatory to both Paris and Vienna Conventions

Relevant installation

“relevant installation” means an installation to which a relevant international agreement applies;

Excepted matter

“**excepted matter**” means nuclear matter consisting only of one or more of the following, that is to say—

- a) **isotopes prepared for use** for industrial, commercial, agricultural, medical scientific or educational purposes;
- b) **natural uranium**;
- c) any uranium of which isotope 235 forms **not more than 0.72 per cent.**;
- d) nuclear matter of such other description, if any, in such circumstances **as may be prescribed** (or, for the purposes of the application of this Act to a relevant foreign operator, as may be excluded from the operation of the relevant international agreement by the relevant foreign law);

prescribed

“prescribed” means prescribed by regulations made by the Secretary of State, which shall be made by statutory instrument and be subject to annulment in pursuance of a resolution of either House of Parliament;

Isotope variation

- Paris convention
 - Radioisotopes which have reached the final stage of fabrication
- NIA
 - Isotopes prepared for use

Excepted matter regulations

Uranium (reprocessed)

Substantially Uranium subject to:

- Uranium up to 1% enrichment;
- Nuclides other than Uranium and daughters limited to:
 - Alpha 3.3 kBq/g;
 - Beta + Gamma 0.74 MBq/g.

Consignment

Material consigned from a nuclear establishment (site covered by Paris or Vienna Convention)

- The material is not waste;
- It is packed and labelled in line with the IAEA (2012) regulations;
- It is fissile excepted under 417(a) to 417(f) of the 2012 IAEA regulations;
- The consignment must not exceed 100 A₂

Practical application

The negative negative

- The convention applies

EXCEPT

where there is an exception

- P&I cover applies

EXCEPT

where an exception does not apply

Paris Convention

Article 4(c)

- The operator ... shall provide the carrier with a certificate issued by or on behalf of the insurer or other financial guarantor
- The certificate shall state
 - the name and address of that operator and
 - the amount,
 - type and
 - duration of the security
- The certificate shall also indicate
 - the nuclear substances and
 - the carriage
 - and shall include a statement by the competent public authority that the person named is an operator

Recommendation NE/M(67)1 in 1967 defines standard format as set out in NE(67)9

- Almost no country uses the format

Process flow

- Vessel asked to carry radioactive material
- Request sent by club member to club nuclear specialists
- Club nuclear specialists determine if sufficient information is provided to demonstrate it is not covered by the nuclear liability conventions
 - Standard consignment note and/or
 - Pro-forma developed for the purpose and/or
 - COFS
 - Contractual response time within a day, or a few hours in urgent cases
 - Actual response time can be under an hour
- For nuclear shipments the club nuclear expert may also provide advice on whether consignors have supplied adequate evidence of nuclear liability cover

Examples of complexities

- Korea
 - Korean insurance required from Korean pool of insurers
- USA
 - USA liability rules apply - but no COFS equivalent
- Belgium
 - Extends to EEZ and does not apply all exemptions

NEA FORMAL/INFORMAL SUMMARIES ARE ESSENTIAL TO THE BUSINESS

Summary

The international group arrangements provide:

- For assessment of ALL (nuclear and non-nuclear) radioactive material shipments by sea
- For 90% of the ocean-going tonnage
- Against nuclear liability conventions
- With a response time of less than 24 hours (or less in urgent cases)
- Checking documentation against IAEA/IMO requirements
- Checking COFS against convention requirements
- Incident and non-compliance support

Low-cost training

P&IQ

Non-nuclear transport liability (dangerous goods)

- HNS convention
- CRTD
- Hamburg Rules
- Rotterdam Rules

HNS convention

- Covers sea transport
- Covers all hazardous and noxious substances
EXCEPT damage caused by a radioactive material
(Class 7)
- Not in force

CRTD

- An ADR/RID/ADN linked convention
- Covers all dangerous goods
 - EXCEPT damage caused by a nuclear substance **IF**
 - The Paris or Vienna conventions apply
 - OR
 - National law assigns liability (terms better than conventions)
- Not in force (by a long way)

Hamburg Rules

- Supposed to update Hague, Hague-Visby, Hague-Visby/SDR
 - UK applies Hague-Visby
- 28 signatories, 35 parties
- Does not cover damage caused by a nuclear incident **IF**
 - The Paris or Vienna conventions apply
 - OR
 - National law assigns liability (terms better than conventions)

Rotterdam Rules

- Needs 20 ratifications
- 25 signatories, but only 5 ratifications
- Does not cover damage caused by a nuclear incident **IF**
 - The Paris or Vienna conventions apply
 - OR
 - National law assigns liability (terms better than conventions)
- Includes multimodal transport involving sea