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Panel 3: Gaps with respect to Nuclear Pollution of the High Seas

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International shipments of nuclear material – routes taken
Background: Basic nuclear liability principles

1. EXCLUSIVE LIABILITY
2. LIABILITY WITHOUT FAULT
3. MINIMUM LIABILITY AMOUNT
4. MANDATORY FINANCIAL COVERAGE
5. LIMITATION OF LIABILITY IN TIME
6. EQUAL TREATMENT OF VICTIMS
7. EXCLUSIVE JURISDICTIONAL COMPETENCE

Nuclear liability principles

### Background: Basic nuclear liability principles

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<td>Exclusive liability</td>
<td>“Channelling” of liability to the liable operator of the nuclear installation</td>
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<td>Liability without fault</td>
<td>Operator liable regardless of fault</td>
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<td>3</td>
<td>Minimum liability amount</td>
<td>Minimum amounts of liability of the operator</td>
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<td>Mandatory financial coverage</td>
<td>Operator must maintain financial security</td>
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<td>Limitation of liability in time</td>
<td>10/30 years from the nuclear incident</td>
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<td>6</td>
<td>Equal treatment of victims</td>
<td>Based on nationality, domicile or residence</td>
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<td>Exclusive jurisdiction competence</td>
<td>Exclusive jurisdiction of one court and recognition and enforcement of judgments</td>
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The principles are included in the 1963/1997 VC, 1960/2004 PC & 1997 CSC
Background: International nuclear liability instruments

**PARIS REGIME**
- *De facto regional - OECD/NEA -*

**VIENNA REGIME**
- *Worldwide - IAEA -*
  - 1997 Protocol to Amend the Vienna Convention “1997 VC”
  - 1963 Vienna Convention “1963 VC”

**1960 Paris Convention**

**1997 IAEA Convention on Supplementary Compensation**
- “1997 CSC”

**1988 NEA/IAEA Joint Protocol**
- “1988 JP”

**1963 Vienna Convention**
- “1963 VC”

**1997 Protocol to Amend the Vienna Convention**
- “1997 VC”

**Background: International nuclear liability instruments**

- *New - Umbrella -*
- *Old -*
- *Modernized -*
Background: Scope of application of the instruments

Liability for “nuclear damage” caused by a “nuclear incident”:

- At a “nuclear installation” situated in the territory of a Contracting Party
- In the course of transport of “nuclear material” to or from such an installation

For preventive measures: grave & imminent threat of causing damage i.e. no actual release
Background: Geographical Scope

No general rule, differs per instrument:

**1963 Vienna Convention** and **CSC Annex** apply to nuclear incidents:
- **high seas** - outside territory of Contracting Parties
- even in territory of non-Contracting Parties, if
- damage suffered in **areas within their scope**

**1997 VC** – Damage “wherever suffered” incld. **high seas**

**1960 Paris Convention:**
- **high seas** - may apply nuclear incidents thereon, if damage is suffered in
  **areas within the scope**
- does not apply to nuclear incidents in territory of non-Contracting Parties

**2004 Paris Convention:**
- **high seas** - nuclear incidents outside territory of Contracting Parties
- damage suffered in Contracting and non-Contracting Parties

Note the limitations re. high seas as the presenter in Panel 3 identified. Also, note that outside geographical scope claims cannot be brought even by Contracting Parties.
### Background: Nuclear material covered

**Nuclear Fuel**

Capable of producing energy by a self sustaining chain process of nuclear fission outside a reactor i.e. fissionable material in the form or uranium metal, alloy, or chemical compound, PU metal, alloy or chemical compound

**Radioactive products and radioactive waste**

Radioactive material produced in or any material made radioactive by exposure to radiation incidental to the production or utilization of nuclear fuel but “nuclear fuel” itself is excluded
Background: Compensable damage

1960 PC/ 1963 VC
- Loss of life and PI
- Loss of damage to property
- [1963 VC only - “any other loss or damage so arising or resulting if and to the extent that the law of the competent court so provides”]

1997 VC, 1997 CSC, 2004 PC
as above & to the extent determined by the law of the competent court:
- economic loss from above
- cost of measures of reinstating a significantly impaired environment
- cost of preventive measures [in the case of a grave and imminent threat] + loss/damage caused thereby
- loss of income from direct economic interest in use/enjoyment of environment
- [1997 VC + CSC] any other “permitted” economic loss (general law)
Background: Compensable damage contd.

- **Traditional types** - personal injury, loss of life, property damage

- **Modern damage** - measures of reinstatement, costs of preventative measures
  - BUT not general degradation of the environment where no economic loss or measures of reinstatement
  - Further, they don’t cover purely non-economic losses such as loss of aesthetic value with no related quantifiable economic loss

- Overall, the heads of damage are consistent with wider international practice of instruments of a similar kind
Further, the international nuclear liability instruments (esp. the modernized ones) follow general developments and the main civil liability features of other international instruments on civil liability applicable to other hazardous or dangerous activities. Incl.:

- **Strict liability for an identified person**
  - Liable operator of the nuclear installation (not a state - drafters did not want to address this - ongoing work of International Laws Commission)

- **Liability limited in time and amount** e.g. 1963VC US$5m (min.) and 1997 CSC SDR300m (min.) incl. international fund; 10yrs/ 30yrs

- **Access to justice incl. non-discrimination**

- **Judgment of the competent court enforceable and recognized**
Ship carrying spent nuclear fuel casks
A number of issues arise incl:

- Need to consider which instrument(s) apply, in particular, as concerns the geographical scope as implemented - location of the damage and incident - high seas

- Need to consider whether there has been an actual release: Where no release, is there a grave and imminent threat of one occurring? If yes, what reasonable and approved measures could be taken to prevent or minimize damage? For example, could this include costs of monitoring, cask retrieval, redirection of ships?

- Further, the competent court (in the installation state (high seas)) will need to determine whether there has been a significant impairment of the environment or not? If yes, what reasonable and approved measures could be taken to reinstate the environment - high seas (or restore damaged or destroyed components or introduce the equivalent)?

- Finally, this court will need to answer the difficult question of remoteness. For example, who has a direct economic interest in the use/enjoyment of the environment, which is now significantly impaired (pure economic loss)? What about fishermen (incl. rights) and business relying on fish stocks, business damage due to shipping restrictions etc.
• Finally, let’s qualify the issue:

• Five decades of safe and secure transport of radioactive material – no breach resulting in “significant radiological damage to people or the environment” (World Nuclear Transport Institute (WNTI))

• Nuclear material covered by the nuclear liability instruments is a small % of hazardous material transported worldwide

• Safety through packaging (Type B casks - stringent testing) and purpose built double hulled vessels

  • mandatory application of IAEA Regulations for the Safe Transport of Radioactive Material > UN Model Regs. (class 7) > IMDG Code > SOLAS

  • mandatory application of the IMO International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Waste on Board Ships > SOLAS
Two other points to note:

Viability of amending the international nuclear liability instruments

• Unlikely to be any change anytime soon to address geographical scope, heads of damage: political will, also is there really a need

Continuing lack of broad adherence to them

• But overall key shipping states are party such as USA - 1997 CSC

• Yet, some are party to the old Vienna and Paris Conventions e.g. UK - 1960PC, France - 1960 PC, Russian Federation - 1963VC

  • Geographical scope limits, heads of damage limits

• Note, ongoing activities of IAEA and its expert nuclear liability group, INLEX, is on facilitating adherence to the modernized instruments (like the 1997 CSC) with the aim of achieving a global nuclear liability regime
Additional reading on nuclear liability:

The 1997 Vienna Convention on Civil Liability for Nuclear Damage and the 1997 Convention on Supplementary Compensation for Nuclear Damage — Explanatory Texts

IAEA International Law Series No. 3

Recommendations on how to facilitate the achievement of a global nuclear liability regime, as organized by the IAEA for the Plan of Action on Nuclear Safety

by

the International Expert Group on Nuclear Liability (INLEX)

In order to facilitate the achievement of a global nuclear liability regime, Member States should take the following steps:

1. All Member States with nuclear installations should adhere to one or more of the relevant international liability instruments that contain commonly shared international principles reflecting the consensus developed under the auspices of the IAEA during the 1990s. In addition, all Member States with nuclear installations should adopt national laws that are consistent with the principles in these instruments and that incorporate the best practices.

2. All Member States with nuclear installations should strive to enter into treaty relations with as many States as possible with a view to ultimately achieving universal participation in a global nuclear liability regime that establishes liability relations among all States. The IAEA's standards, norms, and guidelines provide the basis for establishing a global nuclear liability regime.

3. The IAEA and other international bodies should strive to develop an international instrument to supplement the existing instruments, such as the Convention on International Liability for Damage Caused by Nuclear Installations or similar treaties, to establish liability relations among States that belong to the global convention in the Vienna Convention.

4. In addition to providing liability relations, the IAEA and other international bodies should strive to develop an international instrument to supplement the existing instruments, such as the Convention on International Liability for Damage Caused by Nuclear Installations or similar treaties, to establish liability relations among States that belong to the global convention.

5. Member States with nuclear installations should give serious consideration to entering into a global regime, taking into account the benefits such a regime can offer for activities that should be achieved through a significant number of States with nuclear installations.

6. Member States with nuclear installations should ensure that there are adequate funds available to compensate victims of nuclear incidents, without discrimination. Therefore, such Member State should participate.

7. Establish compensation and financial security amounts significantly higher than the minimum amounts envisaged under the existing instruments.

8. Introduce regular reviews of the adequacy of compensation amounts to ensure efficient implementation of the relevant provisions of the Convention and to ensure that the IAEA and other international bodies can provide the necessary assistance to Member States.

Finally, let's recall the potential other options addressed by the presenter in Panel 3:

- Focus on the state (accountability) - basis for liability for nuclear damage
  - UNCLOS
  - Customary int’l law
    - Reparation in the absence of internationally wrongful conduct
      - State Practice
      - ILC Principles on the Allocation of Loss
    - Invocation of State Responsibility
      - ILC articles on State Responsibility

- Matters to be considered incl.:  
  - Standing
  - Damage
  - Remedies available
Any responses to these comments?