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Abstract

Nuclear liability conventions try to provide a set of rules to govern third party liability. Not all States are parties to one of the existing liability conventions. There are a number of reasons why individual States may choose not to join one of the existing conventions. These include limits of compensation, jurisdiction issues, complexity, cost and definition of damage among others. This paper looks at the existing conventions and identifies some of the main issues in the existing conventions which prevent some States from signing them.

The paper attempts to tease out some of the perceived gaps in the existing conventions and give a brief description of the reasons why non-Contracting Parties have difficulty with the provisions of the conventions. The paper recognizes that there has been work done in this area previously by the International Expert Group on Nuclear Liability (INLEX) and others to try to develop the existing frameworks to enhance global adherence by nuclear and non-nuclear States to an effective nuclear liability regime.

Liability Issues

Introduction

Ireland is a non-nuclear State which has not signed or ratified any of the conventions dealing with nuclear third party liability. In trying to address the topic of liability issues, I have spoken to representatives of other non-nuclear States and tried to gauge what are the most important issues which prompt States not to sign up to the existing nuclear liability regimes. This paper reflects Ireland's point of view, but many of the issues it raises are the same ones which prevent other States which have chosen not to become party to the existing liability conventions from doing so. I hope that at the end of this short presentation I will have given you some idea of the difficulties faced by such States when they try to address the issue of nuclear liability.

To look at these issues in detail it is necessary to first look at the existing Conventions.

Existing Conventions

1. Three existing conventions, the Paris Convention on Third Party Liability in the Field of Nuclear Energy (the Paris Convention), the Vienna Convention on Civil Liability for Nuclear damage (the Vienna Convention) and the Convention on Supplementary Compensation for Nuclear Damage (the CSC) form the main pillars of the existing nuclear liability regimes. I do not propose to go through them in detail, but merely to take a high level overview of the conventions as they initially were, and then to address the revisions as well.
2. Before ratification of the revision protocol to the Paris Convention the original provides that the maximum liability in respect of any single nuclear accident shall be 15 million special drawing rights (SDR's). A Contracting Party (CP) can however reduce this amount to 5 million SDR's where it

- takes into account the possibilities for the operator to obtain insurance or other financial security or, having regard to the nature of the nuclear installation or of the nuclear substance involved, the likelihood of damage arising being much lower compared to other nuclear installations.
3. Following a 1990 recommendation by the NEA, there was international recognition that the figures specified in the original Paris Convention were not sufficient. This led to the adoption of the Brussels Supplementary Convention which established three tiers of compensation. Tier 1 amounts to 5 million Special Drawing Rights (SDR)'s, which corresponds to nuclear operator's liability under the Paris Convention. Tier 2 is paid by the State where the installation of the operator was located and this amounts to the difference between the first tier and 175 million SDR's. Tier 3 is an amount between 175 and 300 million SDR's and this is to be paid by a contribution from each of the Contracting Parties to the Convention.
 4. In case that wasn't confusing enough, we then have the Vienna Convention which allows the State where the nuclear installation is located to limit the liability of the operator to no less than 5 million dollars for any one nuclear incident. The Vienna Convention does not set a maximum liability amount and States can opt to set higher liability amounts including the option of unlimited liability. In theory this could work well, but in practice, States have not opted for unlimited liability and indeed, have not opted for significantly higher liability amounts.
 5. The protocol to amend the Vienna Convention came into force in 2003, and in addition, revised protocols have been agreed and signed for the Paris Convention and the Brussels Supplementary Convention. The revised protocols made the following changes to limits;

| Name | Amount | Additional Information |
|------------------------------------|-------------------------------|---|
| | | |
| Paris Convention | Max limit 15m SDRs | Can be lower limit of 5m SDRs |
| | | |
| Revised Paris Convention | Minimum limit €700m | Can be lower limit of €70m for low risk installations |
| | | or €80m for transport of nuclear substances |
| Brussels Convention | Max limit 300m SDRs | |
| | | |
| Revised Brussels Convention | Max limit €1.5bn | |
| | | |
| Vienna Convention | Min limit \$5m USD | |
| | | |
| Revised Vienna Convention | Min limit 300m SDRs | Can be a lower min limit of 100m SDRs for a |
| | | maximum period of 15 years |

6. As well as these Conventions and their subsequent revisions, there is also a Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention which attempts to link or “bridge” the two regimes. The Convention on Supplementary Compensation for Nuclear Damage

(CSC) attempts to form a worldwide set of rules governing nuclear third party liability.

7. The CSC is also a tiered system, the first tier being 300m SDR's which the Contracting Party must provide if the funds of the liable operator (or its insurance) are insufficient. The second tier is a fund made up of contributions from all Contracting Parties and will be called upon if the first tier is exhausted. This second tier is not fixed and is dependent on the number of nuclear power plants in CP's, but if it has widespread adherence it would be approximately 300m SDR's. It also allows CP's to establish a third tier in excess of the first two, but the CSC does not control this tier.
8. While I am not trying to suggest that the monetary amounts are the only measures of the strength of these conventions, they are a useful guide for non nuclear states who may be considering whether or not to join. There are many other aspects to these conventions however, which must also be factored into any such consideration. Substantial work has been undertaken in the revisions to the existing conventions to strengthen their provisions.
9. Some of the improvements which have taken place include;
 - substantial increases in the sums available to compensate victims
 - extension to the limitation periods
 - definition of damage has been broadened to include damages to the environment and certain categories of economic loss.
10. These are positive changes, however the figures provided for would still appear to be insufficient to meet the required compensation in the event of a severe nuclear accident. In Ireland's opinion therefore, signing up to one of the existing conventions could lead to a situation whereby the

compensation available to its people for injuries they have suffered could be limited as a result of Ireland being party to that Convention.

11. In the USA, for instance, the Price Anderson system allows for a sum of some \$12 billion dollars to be available to cover their 104 reactors. While acknowledging that this figure includes provision for legal costs, it is still a significant difference from the existing Conventions in monetary amounts set aside.

12. Ireland has been asked to join the existing conventions and has taken a policy position that we do not wish to do so. This policy position is influenced by a number of factors. The remainder of this short paper is an attempt to highlight the difficulties faced by some States in deciding whether or not to join one of the existing conventions.

Gaps in the existing conventions

- Limits on compensation
- Jurisdiction
- Limitation periods
- Definition of damage / limited form of economic loss
- Global adherence
- Complexity
- Access for people from non-Contracting Parties or adjacent waters
- Costs and obligations of joining existing conventions

13. The following is a very brief look at each of the bulleted points and should not be seen as a comprehensive study of any perceived gaps but merely my attempt to highlight the issues involved.

Limits on compensation

14. As pointed out earlier the limits do not seem to non-Contracting Parties (NCP)'s to be sufficient. While accepting that nuclear operators are keen to have a global liability regime in place, it is the view of some NCP's that the compensation limits in the existing Conventions represent a major barrier to such a global regime ever becoming a reality.

Jurisdiction

15. There are particular issues of concern in this area as the existing Conventions adopt a general rule that jurisdiction for compensation arising from a nuclear incident lies exclusively with the courts of the CP within whose territory such an incident occurred. Therefore, even if Ireland (as an example) were party to either the Paris or Vienna conventions, an Irish victim would not be entitled to seek compensation in an Irish court, but would instead have to seek redress before an unfamiliar and possibly distant legal system. There is another concern as well in relation to the transport of radioactive materials. The revised Paris and Brussels Conventions extend jurisdiction to the courts of the contracting party in whose exclusive economic zone (EEZ) a nuclear incident arises, assuming the required notification of the zone has been sent to the depositary of the Convention. This is to be welcomed, but it does not deal with a situation where the incident occurs on the high seas but within the continental shelf areas of coastal States, or where the median line between neighbouring States' maritime zones is considerably less than 200 miles, such as in the Irish Sea. Potential jurisdictional difficulties could arise despite the efforts of the Joint Protocol and the CSC to "bridge" the different convention systems.

16. The jurisdiction issue in relation to third party liability remains a concern for some States, but it also ties into the limits on compensation, as the limits for transport of radioactive materials are significantly lower in the

case of the revised Paris Convention. Some coastal States believe that their existing national legislation would provide their citizens with better protection than the existing Conventions.

17. The exclusive channelling of liability onto the operator is another area of concern. While the injured party does not have to prove negligence, the exclusive channelling means that only the operator can be pursued for damages and only under the terms of the Convention to which the State in which the accident occurred is a Contracting Party. This means that the builder of the installation, or a supplier, or the State in which an incident occurred, cannot be held liable. This would seem to run contrary to the usual rules in respect of third party liability and under current Irish law there is no such limit on the number of potential defendants. However, if the limits were reflective of the actual potential damage such an incident could cause, the channelling of exclusive liability need not disadvantage a potential victim.

Limitation periods

18. The current Conventions have a variety of time limits. The Paris and Brussels Conventions have a 10 year limit which can be longer if established by national legislation. National legislation can also be used to establish a limit of not less than 2 years from the time of knowledge of the damage. The Vienna Convention has the same limits, except the time from knowledge of the damage is 3 years rather than 2.

19. The revised Conventions have a 30 year limit for personal injury claims and 10 years for other claims. Again, national legislation may establish longer limits but may also impose a 3 year limit for claim initiation following knowledge of the damage. This is an obvious area of concern for NCP's as the limits are not harmonised and it may take some time after an incident before the full extent of any damage from radiation is discovered.

20. The general lack of harmonisation between the various Conventions is further evidenced by the lower time limits contained in the CSC.

Definition of damage / limited form of economic loss

21. This is, in the opinion of some States, a major limitation in the existing Conventions and one of the primary reasons some States do not choose to join one of the Conventions. The definition of damage was originally limited to loss of life and damage to or loss of any property. As we have unfortunately seen in situations where a nuclear accident has taken place this definition is far too narrow. The revisions to the Paris and Vienna Conventions changed to a much broader definition which now encompasses;

- Economic loss arising from damage to the person or property;
- The costs of reasonable measures of reinstatement of impaired environment;
- Loss of income deriving from a direct economic interest in any use or enjoyment of the environment;
- The costs of reasonable preventive measures and further loss or damage caused by such measures.

22. The revised Vienna Convention also has in its definition of preventive measures; reasonable measures taken by any person not only after a nuclear incident but also after an event creating a grave or imminent threat of nuclear damage has occurred.

23. The broader definitions are a positive change but still fall short of covering all of the situations which non-Contracting Parties fear could impact upon them following a nuclear incident. The specific national measures through which CP's meet their obligations under these provisions contain some

latitude and give discretion to Contracting Parties in their implementation. This can lead to situations where the provisions may be limited by a court's interpretation.

24. The definitions for damage to the environment do not appear to cover such damage where it cannot be repaired. This is surely not what was intended but it is what currently exists. What happens when the economic loss is incurred as a result of *perceived* risk to the environment from an incident involving transport of materials where there appears to be no immediate release of radiation? To clarify, what would happen in liability terms if a ship transporting nuclear materials sank but there appeared to be no immediate risk of release of radiation? If you had such a situation occurring in the Pacific region, or indeed anywhere else, it would be very difficult to convince locals and tourists alike that there was no risk.

25. In Ireland's case, the beaches on the east coast would be the most likely ones to be affected if such an incident occurred in the Irish Sea and County Wexford, where I now live, would be an excellent example. Large numbers of tourists come to Wexford every year to enjoy the local amenities, but if an incident such as the one described took place, it would be very difficult if not impossible, to maintain the tourism and restaurant trade, and yet there is nothing in the Conventions to deal with such a scenario.

26. Any perceived risk needs to be managed carefully and is a cause of concern. In the latest definitions, "damage" is defined around the *actual* release of radiation but there is a need to deal with *perceived* risk as well. If the public perceived a risk to be present, as a result of a sunken ship as outlined, the knock on effect could be catastrophic to the local economy. To attract non-Contracting Parties to the liability Conventions, this is certainly an area which should be investigated further.

Global Adherence / Complexity

27. This should be an easy one for all of us to agree on. Non-Contracting Parties to the existing Conventions wish to see global adherence to an agreed liability regime in the same way that the CP's do. The complexity of the existing patchwork of Conventions is evident from what has been discussed here already. In addition to the existing Paris and Vienna Convention, and their revisions, we also have the CSC and the Joint Protocol. These attempted to harmonise some of the existing Conventions and "bridge" them, but they have not attracted the wide support hoped for. While the general principles are similar, there are many differences in detail, and it is these details and subtleties which make it difficult to have a complete understanding of the nuclear liability regime.

Access for people from non Contracting Parties or adjacent waters

28. The difficulty is that we now have a variety of Conventions with different States being party to different Conventions and availing of different options, and NCP's, or a CP to a different Convention, can have difficulties in pursuing claims. The Conventions have tried to address this to allow NCP's to access some level of compensation, but not access to all tiers.

29. Resolving this issue would also allow Contracting Parties to one of the Conventions to have the security of knowing that, if an incident took place in the State of a Contracting Party to a different Convention, claims could be pursued. An attempt to address this was made by the Joint Protocol, but I would contend that more needs to be done in this area. The advantage for CP's to allow NCP's to have access is that any such claimants would then be more likely to seek redress from a centralised regime rather than make multiple claims. This would mean that industry

would be less likely to be exposed to potentially devastating claims in a multitude of jurisdictions which is what the CP's wanted in the first place.

30. The complexity of the existing Conventions can only make it more likely that NCP's would pursue independent claims when they are not able to access the existing Conventions in a straightforward way. Possible mechanisms should be sought to facilitate the consideration of claims following a major incident when such claims are submitted from claimants from foreign jurisdictions where the state is either a non-Contracting Party or party to a different Convention.

Costs and obligations of joining existing conventions

31. A major difficulty in the current regimes is the costs to NCP's of joining any of the Conventions. It is actually quite difficult to ascertain what exactly those costs will be to a State, however as an example, the immediate costs with the CSC would be the contributions to the second tier and the cost and obligation of amending or introducing legislation based on the Paris or Vienna Conventions or the annex to the CSC. For a CP with nuclear installations, there are obvious advantages to having a nuclear liability regime in place, and the costs associated with joining the Conventions is outweighed by the security of having third party liability in place. This means that States see it as reasonable to contribute to Convention funds if their citizens are able to access the Conventions and their benefits. The nuclear industry in such a State would already contribute to State funds and the offset is plain to see. What happens when a State does not have a nuclear industry? The question arises often in relation to non-nuclear States, why should we ask our people to contribute to the costs of claims relating to the global nuclear power industry when they see no direct benefit to them from an industry which is not present in their State?

32. This is a key question for non-nuclear States, and one which is not easily resolved. Obviously one advantage would be that States could then access the Convention mechanisms to deal with an incident - if one is taking out insurance then one expects to pay a cost to have the peace of mind associated with the insurance. However, in any insurance costs we choose to pay there is always a corresponding benefit. Motor, house and travel insurance are all products we use regularly but we then benefit from the use of a car, house or holiday. If, as a citizen of a non-nuclear power generating State, you believed that you were receiving no direct benefit from nuclear power, what is the incentive to pay the cost?

Summary

33. The recent INES level 7 accident in Fukushima showed once again the need for the international community to work together to address these difficult issues. According to some insurance data the initial payment to the evacuated families will run to some 600 million USD. The total cost is impossible to estimate at this time but it is certainly going to be many times the total compensation available under the Conventions. Three Mile Island is estimated to have cost the global insurance market 1 billion USD and the IAEA publication "The Chernobyl Forum 2003-2005" has estimated the cost of the Chernobyl accident at hundreds of billions of dollars.

34. Given the massive scale of such costs, how can NCP's, particularly those with no nuclear power be expected to join one of the existing Conventions when the benefits of membership are so unclear.

35. In looking at this issue I have tried to highlight what some States see as potential barriers to their membership of any of the existing Conventions. The main areas of concern relate to the costs and complexity, the limited amount of cover and the narrow definition of economic loss/damage.

36. The International Expert Group on Nuclear Liability (INLEX) did a lot of excellent work in developing its explanatory text on the revised Vienna Convention and the CSC. Perhaps INLEX could give renewed priority to addressing some of the issues outlined in this paper and others and propose some real and definite steps that could be taken to address the concerns of NCP's. One of the INLEX goals is to enhance global adherence by nuclear and non-nuclear States to an effective nuclear liability regime and addressing the areas of concern for States which are not party to the existing Conventions would help to achieve this goal.