The "Incentive" Concept as Developed in the Nuclear Safety Conventions and its Possible Extension to Other Sectors

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Introduction

On 26 April 1986, the international nuclear community experienced a dramatic "wake-up call" when the reactor core of the Chernobyl Nuclear Power Plant, situated in the former Ukrainian Republic of the Union of Soviet Socialist Republics, melted down. Due to the large volume of radioactive elements which were released into the atmosphere and spread around the globe, particularly across the northern hemisphere, the accident has been categorised as "by far the most devastating in the history of nuclear power".[1] The incident served to dramatically and vividly remind the world of the potentially devastating national and transboundary consequences which may follow a nuclear accident, and it dispelled the myth that nuclear incidents create predominantly national safety risks. Suddenly all countries, even those without nuclear power capacity or situated in relative geographic isolation from nuclear sites, were forced to realise the risks that could be thrust upon them by a nuclear accident, even one occurring in a far distant state. Chernobyl demonstrated that despite the stationary nature of such plants, thanks to global wind currents external damage could be considerable.

At the time of the accident, it was considered "the generally accepted rule – or real doctrine of international nuclear law – that the prime and ultimate responsibility for nuclear safety rests with the sovereign State having jurisdiction over the nuclear installation",[2] a view that exists still today to some extent. Although by the mid-1980s some internationalisation had taken place in nuclear law, particularly in the fields of radiological protection[3] and non-proliferation, it had not yet reached the

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1. See *Ten Years after Chernobyl: What Do We Really Know?* 1996: www.iaea.org/Publications/Booklets/Chernoten/facts.html.

2. Jankowitsch-Prevor, O., "The Need for a Binding International Safety Regime: The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (The Joint Convention)", 2003 Materials from the International School of Nuclear Law, p. 6 (hereinafter "Binding Regime").

3. Pelzer, N., "Learning the Hard Way: Did the Lessons Taught by the Chernobyl Nuclear Accident Contribute to Improving Nuclear Law?" in: *International Nuclear Law in the Post-Chernobyl Period*, OECD 2006, p. 73-118, www.nea.fr/html/law/chernobyl/nea6146-iaea-chernobyl.pdf. As he notes at

field of nuclear safety.[4] However, in the wake of Chernobyl, "the necessity of at least creating a common skeleton of nuclear safety was (finally) recognised".[5]

In the 20 years since Chernobyl, there have been considerable developments in the international regime governing and improving nuclear safety. Conventions have been implemented covering notification and assistance in the case of an accident, nuclear safety, waste and spent fuel management and liability and compensation. However, the process has been gradual. Even in the aftermath of such a disaster, eight years were required before a draft Convention on Nuclear Safety (CNS)[6] could be agreed upon. The reasons for this delay were varied; in addition to various technical and practical considerations,[7] there was widespread reluctance among states to accept substantive, binding and enforceable obligations in an area with such significance for national sovereignty as nuclear power production. Nuclear power is often both an important part of the national power supply and evidence of high technical and scientific qualification and capability;[8] interference in its operation is not just a matter of national security, but of energy independence and policy, economic policy and national pride.

This reluctance was finally overcome in the early 1990s, following the dissolution of the USSR and in particular the reunification of Germany. By this time, the safety plight of nuclear reactors in the former Soviet block countries, built to earlier standards, was becoming increasingly apparent. Additionally, there was also a great expansion in international environmental law instruments, which, seeing the gaps in coverage, threatened to take over and cover issues of nuclear safety.[9] These developments led to further calls for the creation of a nuclear safety convention, not just from Western States, but also from the Newly Independent States and the Central and Eastern European States, all of whom were keen to join active efforts to address safety problems.

The international acknowledgement of these considerations meant that the climate was ripe to embrace the idea that an international treaty governing nuclear safety should be adopted, not with strict standards and stringent obligations, but within the context of an "incentive" convention structure.

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p. 85: "Rather quickly the radiation protection law of States was based on international radiation protection standards".

4. *Ibid*, p. 87. As Pelzer, N., explains, "The nuclear law fundamental 'international co-operation principle' was only met at the lowest possible level: States co-operated in technical expert groups to draft non-binding nuclear safety codes and standards but maintained their discretion to use or not to use those recommendations".

5. *Ibid*, p. 87.

6. Convention on Nuclear Safety (1994*)* INFCIRC/449: www.iaea.org/Publications/Documents/Infcircs/Others/inf449.shtml.

7. Other factors have been identified, including the absence of a suitable model for the application of international safety standards; the reluctance of nuclear power States to accept the application of any international standard of safety; a great divergence internationally in nuclear power plant designs; and lastly, different national profiles in relation to nuclear risk, environmental protection and economic development. See Washington, M., "The Practice of Peer Review in the International Nuclear Safety Regime", *New York University Law Review*, Vol. 72 (1997), pp. 440-444, for a more complete discussion of these factors.

8. Pelzer, N., *op. cit.*, p. 87.

9. Jankowitsch-Prevor, O., *op. cit*., "Binding Regime", p. 7. For example, prior to the Joint Convention coming into force, provisions in the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal covered the transboundary movement of radioactive wastes.

The incorporation of this concept has, as hoped, overcome any reluctance by states to agree to binding international standards and has enticed all nuclear power states, including those with plants built to earlier standards, into joining first, the CNS and later, the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention).[10]

This paper seeks to analyse the "incentive" concept, initially adopted in the CNS and later developed in the Joint Convention, as the innovation credited with encouraging both participation in, and compliance with, the nuclear safety conventions. It then seeks to examine the possibilities for the introduction of that concept into other sectors of international law.

In the first part of the paper, the essential features of the concept and the mechanisms used in the conventions to bring it into effect will be discussed. The second part of the paper will focus on the different aspects of the conventions which have been described as integral to the concept. The third part of the paper will identify certain apprehensions regarding the effectiveness of such "soft" treaty provisions and explain why the "incentive" concept may be particularly well suited to certain specific situations. The final part of the paper will address the potential application of the concept and related treaty provisions to other fields of law, particularly to international environmental law. In addition, some suggestions will be made as to how provisions implementing the incentive concept into a treaty may be slightly modified to increase their effectiveness.

1) The Content and Implementation of the "Incentive" Concept

a) Introduction

In the past twenty years, five international instruments addressing matters of nuclear safety have entered into force: the Convention on the Physical Protection of Nuclear Material[11] (CPPNM) which is both safety and security related; the Convention on Early Notification of a Nuclear Accident[12] (Notification Convention); the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency[13] (Assistance Convention), the CNS and the Joint Convention. Of these Conventions, it is the two most recent, incorporating the "incentive" concept, which are the focus of this paper.

In the immediate aftermath of Chernobyl, and with remarkable speed in their drafting and adoption, the Notification Convention and the Assistance Convention were quickly ratified by the international community.[14] Despite containing welcome provisions creating a duty to notify nuclear accidents with actual or possible transboundary effects, and to co-operate in arranging for assistance in the case of an accident or emergency, these Conventions do not constitute a comprehensive regime outlining well defined rights, obligations and sanctions.

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10. Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, (1997) INFCIRC/546: www.iaea.org/Publications/Documents/Infcircs/1997/infcirc546.pdf.

11. The Convention on the Physical Protection of Nuclear Material (1980) INFCIRC/274/Rev.1.

12. Convention on Early Notification of a Nuclear Accident (1986) INFCIRC/335.

13. Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (1986) INFCIRC/336/Add.1.

14. Both Conventions were adopted in September 1986, and they came into force on 27 October 1986 and 26 February 1987 respectively.

Acknowledging that what may be achieved in public international law may vary dramatically from what is desirable, and that the greater the number of parties to an agreement the more difficult it will be to reach a consensus, these treaties encourage their parties to enter into further bilateral and regional agreements[15] and challenge them to develop the general legal framework of the convention in the manner they deem fit. According to Dr. Pelzer "… the option to conclude complementing bilateral or regional agreements, as appropriate, is a most progressive element of the conventions", and that in so far as "the incentive convention encourages the Parties to develop … the measures necessary to achieve the (goals of the convention) … the Notification and Assistance Conventions may be seen as the still less developed precursors to the incentive convention".[16]

However, this position does not seem to be reflected elsewhere in the literature and arguably does not adequately take into account the vastly different dispute settlement mechanisms under the two groups of conventions,[17] nor the absence of a peer review mechanism under the earlier conventions.

b) The Convention on Nuclear Safety

i) Drafting History and the Development of the Incentive Concept

In order to understand the "incentive" concept as embodied in the nuclear safety treaties, it is important to first appreciate the difficulty in reaching consensus amongst states with disparate interests.[18] The CNS was the first internationally binding agreement covering the safety of nuclear reactors and its drafting was a laborious process. In contrast to the Notification and Assistance Conventions which were created in the wake of a disaster, the political motivation behind the CNS appears to have been prevention rather than cure.[19] This was a welcome development. As history attests, the term "incentive convention" was a product of the early drafting process, designed to encourage consensus and participation in the treaty, and strictly speaking, is a term without precise meaning or international law precedent.[20]

By 1991, the impetus was developing amongst all states, including the United States,[21] to introduce formally binding safety obligations. The 1991 IAEA General Conference passed a

15. Article 1(2), Assistance Convention; Article 9, Notification Convention.

16. Pelzer, N., *op. cit*., p. 83.

17. The Assistance Convention (Article 13) and the Notification Convention (Article 11) have much more traditional dispute settlement provisions than those found in the later "incentive" conventions.

18. For a more detailed description and analysis of the drafting history, see Jankowitsch, O., "The Convention on Nuclear Safety", in: *Nuclear Law Bulletin* No. 54 (1994), pp. 9-22 and for a commentary written during the drafting process, see de la Fayette, L., "International Environmental Law and the Problem of Nuclear Safety", *Journal of Environmental Law*, Vol. 5, No. 1, (1993) pp. 31-69.

19. Jankowitsch, O., *ibid*, p. 11.

20. Rautenbach, J., Tonhauser, W. and Wetherall, A., "Overview of the International Legal Framework Governing the Safe and Peaceful Uses of Nuclear Energy – Some Practical Steps" in: *International Nuclear Law in the Post-Chernobyl Period*, OECD, 2006, p. 14.

21. De la Fayette, L., *op. cit*., pp. 37-39. The author suggests five main reasons why, by the summer of 1991, the US had decided that the development of internationally binding obligations might now be advisable.

resolution[22] calling for the formation of an instrument covering the safety of nuclear plants, but it did not specify either its form or type. This task was left to the IAEA Director General who convened a group of 36 experts to advise on the structure and contents of a future convention. The 1991 document "Safety Fundamentals, The Safety of Nuclear Installations" (Safety Fundamentals) was accepted by the experts as the main technical reference for the convention since it represented an international consensus on the basic concepts required for the management, regulation, safety and operation of nuclear installations.[23] During this early stage, the majority of the experts favoured an instrument which, while having as its primary focus the safety of nuclear power plants, would cover all types of nuclear facilities and activities, including transportation and disposal of nuclear waste.[24]

Unfortunately, the Safety Fundamentals document, drafted from a national regulatory perspective, proved to be difficult to transpose directly into international treaty language and in February 1992, a new "open-ended" group of technical and legal experts was established to carry out the necessary and substantive preparation for the convention.[25]

At the time, rhetorical commitment to the principle of a CNS was nearly universal, the goal being to establish a convention by which the international community could assert its influence to create a uniformly high safety culture. Despite this, expectations and goals were not shared by all states, with different preferences as to how they should be accomplished soon becoming apparent.[26] As to content, states were only prepared to include obligations based on fundamental principles and were reluctant to include more substantive obligations in the treaty. It was recognised by the drafters, however, that a list of general obligations formulated as a single treaty document would, in itself, be insufficient. If the convention was to contribute to promoting "the highest level of nuclear safety worldwide", it required a mechanism commensurate with that objective.[27]

The difficulty was to find a mechanism which could verify compliance with obligations without infringing the international consensus that "responsibility for nuclear safety rests with the State having jurisdiction over a nuclear installation",[28] without exposing states to intrusive inspections and the costs accompanying an international regulatory bureaucracy and without the difficult task of codifying standards for disparate nuclear technologies which could rapidly become outdated or which could impede the development of civilian power.[29]

This problem of finding a suitable compliance mechanism was finally "resolved with the help of the convincing argument that enlightened self-interest of States in matters of nuclear safety would be

22. "Measures to Strengthen International Co-operation in Matters Relating to Nuclear Safety and Radiological Protection" IAEA General Conference Resolution GC(XXXV)/RES/533, 20 September 1991.

23. Jankowitsch, O., *op. cit.*, p. 11.

24. De la Fayette, L., *op. cit.*, p. 40.

25. Jankowitsch, O., *op. cit.*, p. 11.

26. Barkenbus, J. and Forsberg, C., "Internationalising Nuclear Safety: The Pursuit of Collective Responsibility", *Annual Review of Energy and the Environment*, Vol. 20, (1995) p. 191.

27. Jankowitsch, O., *op. cit.*, p. 12.

28. Preamble paragraph (iii), CNS.

29. Stoiber, C., "International Convention on Nuclear Safety: National Reporting as the Key to Effective Implementation" *Contemporary Developments in Nuclear Energy Law: Harmonising Legislation in CEEC/NIS*, 1999, p. 97.

stronger than any form of outside control devised under international law".[30] It was thought that if a mechanism could be developed to take advantage of this self-interest, particularly in conjunction with effective "peer group pressure", this might improve nuclear safety in all power plants. It was also thought that a "meeting of all Contracting Parties would be the appropriate method of focusing these "peer group" effects".[31] Within the spirit of this approach, it was agreed amongst the experts "(…) to establish a convention with an 'incentive character' to which a large number of States could adhere",[32] and the term "incentive" was subsequently inserted into the preamble of the convention.[33]

The "incentive" solution, previously unprecedented in international law, prompted the parties to resolve their differences regarding the scope of the convention and they eventually agreed upon an instrument covering only the safety of civilian nuclear power plants. The reason for the reluctance of certain major nuclear states to commit to more stringent controls is unclear. Writing at the time, de la Fayette observed that because "States" commitment to safety is already strong, and because they are already implementing all the provisions proposed, the convention would not impose any new burdens or constraints, but merely transform into conventional legal obligations what are already customary and moral duties.[34] Other commentators have suggested that those states did not wish their own nuclear industries to be subject to substantial international scrutiny or that the convention allow for financial claims by other states. States wanting a more stringent convention were forced to accept the weakened proposal; it "would not have made sense to adopt a convention the majors would have refused to join."[35]

The Convention was adopted on 17 June 1994 and entered into force on 24 October 1996. As of 4 April 2007, there were 65 Signatories and 60 Contracting Parties.[36] Following India's ratification in March 2005, all countries with operating nuclear power plants are now parties to the Convention.

ii) Provisions of the CNS

The objective of the CNS is to "achieve and maintain a high level of nuclear safety worldwide through the enhancement of national measures and international cooperation including, where appropriate, safety-related technical cooperation".[37] The desire to promote the creation of an effective safety culture is also stated[38], as are the additional objectives of protecting against radiological hazards and preventing and mitigating accidents with radiological consequences from land based civil nuclear power plants.[39]

30. Jankowitsch, O., *op. cit*., p. 13.

31. *Ibid*, p. 13.

32. *Ibid*, p. 13.

33. Preamble paragraph (vi) CNS. *Ibid*, p. 13.

34. De la Fayette, *op. cit*., p. 68.

35. Kamminga, M., "The IAEA Convention on Nuclear Safety", *International and Comparative Law Quarterly*, Vol. 44, (1995) pp. 879 and 881.

36. Status of Nuclear Safety Convention (last update 4 April 2007): www.iaea.org/Publications/Documents/Conventions/nukesafety_status.pdf (accessed 9 October 2007).

37. Article 1(i) CNS.

38. Preamble paragraph (iv) CNS.

39. Article 1 (ii) and (iii), Article 2(i) CNS.

There are two main types of obligation under the Convention. The first is a general obligation to take the legislative, regulatory and administrative measures required to implement obligations under the treaty. This obligation is often quite general in nature, only requiring that due care is employed in performing the obligation rather than that a specific result is achieved and not specifically enjoining IAEA standards as treaty obligations.

The second is the reporting obligation inherent in the effective operation of the peer review process. National reports under the CNS provide a unique opportunity for states to demonstrate that they are meeting their national responsibilities for nuclear installations.[40] Compliance with this process is the primary obligation of states under the treaty. The Convention objective of enhancing nuclear safety world-wide can "only be advanced if Contracting Parties produce a candid, objective and transparent record of issues affecting nuclear safety and how they are being addressed".[41] From both practical and theoretical perspectives, the importance of this requirement can not be underestimated.

The peer review process under the CNS consists of several elements: the duty to prepare national reports,[42] to review the reports of others and decide whether to submit questions in advance of peer review meetings,[43] to attend the review meeting of the Contracting Parties at least every three years[44] and to participate in a review of national reports.[45] Although the CNS and the rules of procedure and financial rules (Rules) are vague as to the form and content of the national report, the Guidelines Regarding National Reports (GNR) provide substantial detail.[46] Information provided by the parties in fulfilling their duty to report may be regarded as confidential if the party so requires, but this is discouraged in order to provide the "open, candid and transparent process" which will improve public confidence in the Convention.[47]

It is also important to highlight the near absence of enforcement or dispute resolution mechanisms under the treaty. Since the review process represents the sole "enforcement" feature of the CNS, a "failure to fulfil these procedural requirements would represent a serious breach of treaty obligations".[48] The review mechanism is in keeping with the pragmatic "peer group" approach devised by the negotiators. Disputes should be settled in an amicable manner within the existing structure and not be brought to any court.[49] Outside the envisaged peer review mechanism, the methods to bring an errant party into line are limited. This provision is remarkable in that it is contrary to most conventions which provide for reference to a permanent political or administrative body, a national court, the

40. Stoiber, C., *op. cit*., p. 113.

41. *Ibid*, p. 113.

42. Article 5 CNS, Rules 39 and 40. The procedural documents governing the conduct of the review meetings were developed subsequent to the mandate in Article 22(1)(i). They include the rules of procedure and financial rules (the rules), guidelines regarding national reports (GNR) and guidelines regarding the review process. See Stoiber, C., *op. cit*., p. 99.

43. Rule 43.1(b).

44. As required by Article 20 CNS.

45. Article 24.1 CNS.

46. Stoiber, C., *op. cit*., p. 101.

47. Article 27(2) CNS. *Ibid*, pp. 103-104.

48. *Ibid*, Stoiber, C., p. 101.

49. Jankowitsch, O., *op. cit*., p. 18.

International Court of Justice (ICJ) or an arbitral tribunal.[50] It also represents a departure from the structure of earlier conventions impacting upon nuclear safety, such as the CPPNM,[51] the Assistance Convention[52] and the Notification Convention,[53] all of which provide for recourse to international dispute settling mechanisms.

c) Joint Convention

i) Development of the Convention

Opened for signature three years after the drafting of the CNS, the Joint Convention represents a binding commitment by states to achieve and maintain a high level of safety in spent fuel and radioactive waste management worldwide. It was the first legally binding international instrument to address these issues on a global scale, and, like its "sister" convention, the CNS, it can also be described as an "incentive convention". Although, it was initially hoped by non-nuclear, Nordic and like-minded states that provisions governing nuclear waste would be incorporated into the CNS, this ultimately proved impossible. Instead, it was agreed that this subject should be left for separate negotiations and the preamble of the CNS affirms this agreement.[54]

Shortly after the adoption of the CNS, the IAEA's 1994 General Conference invited the Board of Governors and the Director General to commence preparations for a convention on the safety of radioactive waste management, and in February 1995, the Director General convened an open-ended meeting of experts to discuss the concept, scope, mechanisms and procedures for such a convention.[55]

In March 1995, the IAEA Board of Governors adopted the Safety Fundamentals document "Principles of Radioactive Waste Management", paving the way for the work of the experts and providing a basis for the obligations to be assumed under the new convention.[56] The first meeting of experts was held in July 1995; following five meetings and much debate and compromise, the French suggestion for the current format of a single convention with two parallel sets of requirements was agreed upon.[57]

The negotiation process lasted over two years, primarily due to considerable disagreement over the concept of spent fuel, considered by some countries to be waste and by others to be a useful and

50. *Ibid*, p. 18.

51. Article 17 CPPNM; additionally the 2005 Amendment to the Convention in: GOV/INF/2005/10-GC(49)/INF/6 does not change this article: www.iaea.org/About/Policy/GC/GC49/Documents/gc49inf-6.pdf.

52. Article 13 Assistance Convention.

53. Article 11 Notification Convention.

54. Preamble paragraph (ix), CNS.

55. Tonhauser, W. and Jankowitsch, O., "The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management", *Nuclear Law Bulletin* No. 60, 1997, reproduced in: *International Nuclear Law in the Post-Chernobyl Period*, OECD, 2006, p. 201. www.nea.fr/html/law/chernobyl/nea6146-iaea-chernobyl.pdf.

56. *Ibid*, p. 207.

57. Tonhauser W. and Jankowitsch-Prevor, O., *op. cit*., p. 205.

re-usable resource.[58] Since the CNS blueprint had just been developed, this time the choice of treaty model was uncontroversial. In fact, at their first meeting, the experts rapidly agreed that the CNS model, an "incentive convention" be adopted for the new convention.[59] The draft convention was adopted and opened for signature on 29 September 1997 and it entered into force on 18 June 2001.[60]

ii) Provisions of the Joint Convention

Like the CNS, the objectives of the Joint Convention include nuclear safety, radiological protection and technical safety.[61] The desire to promote an effective safety culture is also included in the preamble.[62] The Joint Convention applies to spent fuel and radioactive waste resulting from civilian nuclear reactors and applications and to military or defence fuel or waste once transferred permanently to, and managed within, exclusively civilian programmes, or if declared as spent fuel or radioactive waste for the purposes of the convention by the Contracting Party.[63] It also applies to planned and controlled releases of liquid or gaseous radioactive materials from regulated nuclear facilities into the environment.[64]

The obligations to be undertaken by Contracting Parties are principally of two types. The first are general obligations, largely based on provisions of the CNS and "The Principles of Radioactive Waste Management." In particular, Contracting Parties are required to take appropriate legislative, regulatory and administrative measures to govern the safety of spent fuel and radioactive waste management. Additionally, they are to ensure that individuals, society and the environment are adequately protected against radiological and other hazards, by regulating the appropriate siting, design and construction of facilities and by making provisions for ensuring the safety of facilities both during operation and after their closure.[65]

As with the CNS, the second set of obligations regarding reporting and peer review are binding on the Contracting Parties.[66] The compliance system in the Joint Convention is more refined than that of the CNS and describes in detail the range of subjects to be encompassed by such reports.[67] The provisions on peer review and reporting are more adapted to the specific requirements of the Joint

58. See de Kageneck, A. and Pinel, C., "The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management", *The International and Comparative Law Quarterly*, Vol. 47, No. 2, (1998) pp. 409-425 for a more comprehensive discussion of both this aspect and the way in which gaps/overlaps between the CNS and the Joint Convention were handled; likewise Tonhauser, W. and Jankowitsch, O., *op. cit*., p. 201 discuss the drafting history of the Joint Convention.

59. Tonhauser, W. and Jankowitsch-Prevor, O., *ibid*, p. 206.

60. www-ns.iaea.org/conventions/waste-jointconvention.htm (last accessed 19 November 2006).

61. Article 1 Joint Convention, although as a more recent document it also incorporates recognition of the necessity of sustainable development in Article 1(ii).

62. Preamble paragraph (v) Joint Convention.

63. Article 3 (i)-(iii) Joint Convention.

64. Article 3 (iv) Joint Convention, as described at: www-ns.iaea.org/conventions/waste-jointconvention.htm (last accessed 19 November 2006).

65. For more details see: Tonhauser, W. and Jankowitsch-Prevor, O., *op. cit*., page 203; see also: www-ns.iaea.org/conventions/waste-jointconvention.htm (last accessed 19 November 2006).

66. *Ibid*, p. 203.

67. Article 32 Joint Convention.

Convention.[68] The obligation for States to attend reviews remains, as does the possibility of inviting competent intergovernmental organisations to attend as observers.

Although the primary mechanism for resolving disputes remains the same for the Joint Convention as for the CNS, the Joint Convention procedure allows for limited recourse to external dispute settlement.[69] The stringent amendment procedure outlined in the Convention is in keeping with the incentive nature of the Convention and the peer review mechanism. It requires the convening of a diplomatic conference and a two-thirds majority.[70]

3) Interpretation of the "Incentive" Concept in the Conventions

a) "Incentive Convention" in the Literature

The general consensus is that the CNS is an "incentive" convention because it "is intended to provide "incentives" for nations to improve nuclear safety, rather than to impose "regulatory" or "penal" measures to this end".[71] An excellent definition of the term is as follows: "Neologism used by the drafters to qualify the convention as *sui generis* as regards the obligations of its Parties: National legal obligations under the convention are to be implemented by the Contracting Parties *bona fide* without internal or external control mechanism, monitoring or sanction regime. The mechanism for *quasi* enforcement is the "meeting of the Contracting Parties" held in regular intervals in a peer review mode which each Party is under obligation to attend and submit a national report to be established in an agreed form on its implementation of the relevant obligations of the convention".[72]

The decision not to include sanctions is born out of the recognition that if they were included in the conventions, states would not have adhered to them. Unlike other legally binding international instruments, the effectiveness of an incentive convention "does not derive from specific obligations for non-compliance or reliance on dispute settlement provisions but rather it seeks to rely on a common interest amongst the Parties to achieve high levels of safety".[73] The mechanism of peer review is crucial.

Although some authors assumed, initially, that an "incentive" convention meant assisting and encouraging countries to join the convention through the provision of technological and financial incentives,[74] the general literature does not bear this out. The term was "not to be understood in a material sense" but rather to mean "incentive" in terms of providing "encouragement" or

68. Pelzer, N., *op. cit*., p. 93.

69. Article 38 Joint Convention provides that, "In the event that the consultations prove unproductive, recourse can be made to the mediation, conciliation and arbitration mechanisms provided for in international law".

70. Tonhauser, W. and Jankowitsch-Prevor, O., *op. cit.*, p. 204.

71. Stoiber, C., *op. cit*., p. 113.

72. Jankowitsch-Prevor, O., "Glossary of Nuclear Legal Terms" Materials from International School of Nuclear Law, 2006, Second Edition at p. 9.

73. Rautenbach *et al*, *op. cit*., p. 14.

74. See Kamminga, M., *op. cit*., p. 879 where it is stated, "Although the Convention claims, in its preamble, to be an "Incentive Convention", initial drafts of the convention contained no reference whatsoever to technical assistance".

"emulation".[75] Additionally, there is no mechanism by which such assistance could be co-ordinated. Although it might be desirable for the concept to include other mechanisms for enticing compliance, such as financial or technical assistance,[76] the concept is restricted to providing incentives through creating expectations,[77] "encouragement", "emulation"[78] or "peer pressure".

It is also worth noting that compliance is generated through participation in the conventions and in this sense they can be described as in-progress instruments. "The Parties are not forced into an immediate full implementation of the convention's obligations. It is a step-by-step approach to achieving a high level of nuclear safety. Parties are allowed and invited to learn and get better successively. Parties will not lose face".[79] Being "part of the convention clearly demonstrates the national commitment to safety in the management of radioactive material, irrespective of the country's current situation".[80]

Other scholars view the encouragement of bilateral treaties to further develop the regime and the encouragement of a safety culture as integral to the "incentive" concept,[81] but both are only mentioned in the preamble of the conventions and their categorisation as essential aspects of the "incentive" concept is probably immature. Their role in generating a well-functioning safety regime should nevertheless not be underestimated and they may well become essential components of the concept in the future.

Given the increase in experience and different subject matter covered, it is only natural that there be some maturation of the incentive concept between its inception in the CNS and its development in the Joint Convention. Despite this, the essential provisions of the incentive convention remain uncontroversial: the use of non-binding fundamental safety principles rather than detailed standards, the provisions outlining the requirement to actively participate in the peer review mechanism both through the reporting requirements and participation in the review meetings, and the relative lack of a non-compliance procedure.

b) Criticism of the incentive concept

Reaction to the two conventions was initially mixed. Some scholars maintained the view that they are remarkable achievements and the "most effective instruments for enhancing nuclear safety world-wide considerably contribut[ing] to improving nuclear law".[82] Others have been more

75. Jankowitsch, O., *op. cit*., pp. 12-13.

76. The absence of such a mechanism is also criticised by Foss, N., "Nuclear Safety and International Governance: Russia and Eastern Europe" (1999) *Oxford Institute for Energy Studies* www.oxfordenergy.org/pdfs/SP11.pdf (last accessed 11 November 2007).

77. Boustany, K., "The Development of Nuclear Law-Making or the Art of Legal 'Evasion', *Nuclear Law Bulletin*, No. 61 (1998), pp. 39-53, p. 44, quoting Nguyen Quoc Dinh, Patrick Daillier, Alain Pellet, *Droit International Public*, LGDJ, Paris, 5th Edition, 1994, p. 383, paragraph 259.

78. Jankowitsch, O., *op. cit*., pp. 12-13.

79. Pelzer, N., *op. cit*., p. 98.

80. Risoluti, P., "The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management", presented at ANEAS 2004 Nuclear Energy Symposium www.osti.gov/bridge/servlets/purl/841407-viugF2/native/841407.pdf (accessed 27 November 2006), p. 5.

81. Pelzer, N., *op. cit*., pp. 82 and 89.

82. Ibid. p. 95.

disapproving, criticising them for being imprecise, insular and inward looking and in one case stating that "the convention contains neither the precise standards of the Convention on the Transboundary Effects of Industrial Accidents, the flexible amendment procedures of the Montreal Protocol on Substances that Deplete the Ozone Layer, nor the incentive provisions of the Convention on Climate Change".[83] Others with a greater flair for the dramatic have described the conventions as being prone to the art of legal evasion,[84] while yet other writers have been so unhappy with the conventions as to suggest a virtual discarding of the idea of an "incentive" convention.[85]

As Handl notes,[86] on first impression both conventions appear to be formulated rather weakly and to be subject to either normative indeterminacy or significant reservations. Provisions seem to start strongly then undermine themselves with qualifications such as "reasonably practical" and "as soon as practically possible". The ability for the peer review process to determine the real extent to which measures have been implemented or directly influenced country conditions has also been questioned.[87]

Although the failure of the "incentive" conventions to provide for independent verification of compliance was initially a cause for concern,[88] criticism prior to the implementation of the CNS review process and pessimism as to its effectiveness has clearly been proved ill founded. The results of the peer review mechanism have clearly been positive and early calls for reform of the process are now seen as having been premature.

c) Peer Review under the Conventions

The obligation to undergo peer review is both an innovative and dynamic aspect of the CNS.[89] The cornerstones of the peer review mechanism are the national reporting requirements[90] and the holding of meetings to review the performance of the Contracting Parties.[91] The national reports are the tools that "enable Parties to focus on the steps and measures already taken and the progress made in implementing the respective conventions' obligations".[92] They allow national authorities to review

83. Kamminga, M., *op. cit*., p. 881.

84. Boustany, K., *op. cit*., p. 37.

85. McMillan, K., "Strengthening the International Legal Framework for Nuclear Energy*", Georgetown International Environmental Law Review*, Vol. 13, (2001) pp. 983-1012.

86. See Handl, G., *op. cit*., pp. 11-12. He particularly identifies preamble paragraph (viii) which contradicts (ii), Article 6 of the CNS, and also Articles 5 and 12 of the Joint Convention.

87. Foss, N., *op. cit*., p. 68.

88. Kamminga, M., *op. cit*., p. 879.

89. For a discussion of peer review both within the context of the CNS and voluntary review, see Washington, M. "The Practice of Peer Review in the International Nuclear Safety Regime", *New York University Law Review*, Vol. 72 (1997) pp. 430-468. See also: www-ns.iaea.org/conventions/nuclear-safety.htm (last accessed 19 November 2006).

90. Article 5 CNS, Article 32 Joint Convention.

91. Articles 20 and 23 CNS, Articles 30-31 Joint Convention.

92. Rautenbach *et al*, *op. cit*., pp.14-15.

all national activities and develop plans for future actions that may be required and they facilitate an open exchange of information enabling Parties to decide if their performance requires improvement. [93]

Although there was initial apprehension about the effectiveness of the peer review mechanism, following the third review meeting of the CNS and the second review meeting of the Joint Convention those fears have largely dissipated. Instead, the "developments that have occurred during the application of the review process demonstrate not only significant progress towards safety-related improvements but also a willingness of the Parties to fully contribute to the process". [94]

The first review meeting of the CNS in 1999 provided a "snapshot" of the measures Parties had taken and were taking; the second in 2002 provided a more focused review, highlighting progress in individual States and concentrating on specific issues. At the last review meeting in 2005, it was concluded that all Parties in attendance were in compliance, a conclusion that led to the identification of the next problem – that of complacency. Likewise, the first review meeting under the Joint Convention was interpreted as contributing significantly to the achievement of the convention's objectives by prompting improvements by states and identifying deficiencies and enhancements for the future.[95]

Given its success, the process serves to implicitly refine, strengthen and progressively raise the normative threshold against which an assessment of compliance will be assessed. It has also been posited that the use of international standards as guidance within the context of the review process will assist in transforming these standards into "*de facto* legally binding mechanisms so long as the peer review mechanism functions as intended". [96]

The peer review process does not just generate obligations. Parties have the right to be informed about actions in other parties, thus gaining technical knowledge and assistance as to current safety levels.[97] The requirement that all states participate actively in the review process, not only those whose compliance is under question, may also increase goodwill and allow for best practices to be more easily identified and disseminated amongst states.

As we have seen, the peer review process is proving to be quite effective in raising levels of nuclear safety and earlier criticisms appear unfounded. Some scholars, however, still question whether the Joint Convention truly conforms to the "incentive" spirit since it incorporates recourse to external arbitration[98] even though in a limited manner. In response, it can be argued that since the most important aspect of an incentive convention is its peer review process, limited dispute resolution provisions should not be given undue weight.

93. *Ibid*, p. 14-15.

94. *Ibid*, p. 15.

95. *Ibid*, p. 16.

96. Handl, G., *op. cit*., p. 16.

97. Risoluti, P., *op. cit*., pp. 4-5.

98. De Kageneck, A. and Pinel, C., *op. cit*., p. 424.

4) Analysis from a Law & Economics Perspective

Given that the peer review processes under the CNS and the Joint Convention have been overwhelmingly positive thus far, one wonders whether these results are transferable to other international regimes, particularly those addressing environmental safety.

From a basic game theory perspective, international conventions can be useful tools to address problems between states where co-operation, although desirable in that it results in an overall increase in welfare, may not be sustainable in the absence of an agreement, due to incentives by any one player to defect and maximise their individual payoff.

Although treaties are entered into for various reasons, compliance with treaty obligations does not always have to be enforced. For example, where states have common interests and co-operation is easy to achieve (e.g. maintaining territorial integrity between peaceful bordering states), states are likely to respect that co-operation with or without a treaty; the treaty plays only a small role beyond generating goodwill and signalling good intentions. Similarly, although treaties may be created where co-operation requires co-ordination of action (e.g. common rail gauge between neighbouring states) they are often unnecessary; once the standard is decided upon, it is the interests of both states to comply.

However, the situations that the CNS and the Joint Convention address are not those of pure co-ordination. In both cases, once a bargain is struck regarding safety obligations, incentives are generated for states to "defect" from fulfilling their obligations. States recognise that by reducing safety standards they will benefit from reduced compliance costs and will bear only part of the cost of damage resulting from an accident, the remainder being externalised onto surrounding states. Meanwhile, they continue to enjoy the benefits of compliance by the other Contracting States, including the reduced likelihood of damage from accidents in those other States. This game, described as a prisoner's dilemma, is one in which the "parties can maximise their total joint payoff through mutual cooperation but each player does better by defecting".[99]

Provided that the game is an ongoing one where states make repeated decisions on compliance, co-operation can take place.[100] Parties have at least three reasons to co-operate. The first is reciprocity: a violation by one party will likely provoke a violation by another party but the reciprocal act is generally not taken with intent to sanction and is not costly to the reciprocating state. Secondly, both countries value their reputation as a state that honours commitments: a reputational sanction is the cost imposed on a state when its reputation is damaged. Finally, there is the threat of retaliation or punishment: although such an act is costly to the sanctioning state, if undertaken, it will further increase the cost of the breach to the non-complying party.[101]

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99. Guzman, A., How International Law Works: A Rational Choice Theory, Draft manuscript from author July 2007 forthcoming from *Oxford University Press* (2008), (hereinafter "How International Law Works"), Chapter 2, p. 23.

100. Guzman, A., explains in "A Compliance-Based Theory of International Law", *California Law Review* Vol. 90 (2002), 1824-1887 (hereinafter "Compliance-Based Theory"): Although a one-shot game may not generate compliance, once a State expects future interactions the threat of loss of reputational capital in the international area in the case of a breach of an agreement may be enough to alter the equilibrium in which non-compliance would normally occur, if only the other payoffs of defecting, including the threats of reputation and retaliation were taken into account. In such cases, a State may comply in order to avoid the reputational low that would accompany a violation of international law.

101. Guzman, A., *op. cit.*, "How International Law Works", Chapter 2, pp. 26-27.

Although reputation is often an important consideration motivating states to comply with international obligations, and explains why compliance with international law is higher than would generally be predicted, two observations must be made. The first is that the "existence of a reputational effect impacts country incentives, but in some instances that impact will be insufficient to alter country behaviour".[102] The second is that it generally operates in the shadow of the possible use of the other enforcement mechanisms. Three key factors determine whether a particular action affects the associated reputation: the non-reputational sanctions the state will face, the state's existing reputation at the time of the action and the importance of the obligation to other states.[103]

Non Reputational Payoffs

Reputation can be an incentive to comply with international legal obligations even in the absence of formal enforcement mechanisms. However, it operates at the margins and is sometimes insufficient to effect state behaviour.[104] A vital part of compliance is generally the non-reputational payoffs a state will enjoy for non-compliance (defection). In the case of the CNS and Joint Convention, these payoffs are likely to be low because the defecting state is likely to suffer a large proportion of the damage generated by non-compliance (e.g. much of the harm from a nuclear accident will be domestic and not externalised onto neighbouring countries) or that sufficient harm will be prosecuted domestically (e.g. through liability rules). Aside from the externality aspect of the payoff structure, and particularly in the case of the CNS, states have an inherent interest in the provision of a safe and secure power supply; they will want to protect this interest, even in the absence of international obligations.

However, as the proportion of damage suffered domestically reduces and the proportion of damage externalised onto other states increases, the incentive to renege on an obligation is likely to be stronger, and in such cases the weak enforcement mechanisms provided by "reputation" may be defeated. It is quite likely that the "enlightened self interests of States",[105] to which the CNS is widely considered to appeal, corresponds quite closely with the non-reputational payoffs described here.

Identifying Non-compliance

What is important is that other parties are able to identify acts of non-compliance in order to sanction transgressions by withholding reputational esteem. An essential requirement for identification is accurate information about the behaviour of the other parties. Originally, the model described by Guzman assumes that states have complete information about existing non-reputational payoffs, legal rules and each other's actions.[106] Of course, in the real world this is never the case; however, the beauty of the peer review mechanism is that by requiring the submission of country reports and creating a forum in which information can be exchanged and discussed, a procedure is established which goes a long way towards reducing information asymmetries between the parties. This strengthens the incentive to comply by increasing the cost of violation, since the latter is more likely to be detected than in the absence of such a mechanism. By seeing the process as a means of increasing

102. Guzman, A., *op. cit.*, "Compliance Based Theory", p. 1849.

103. Guzman, A., *op. cit.*, "How International Law Works", Chapter 3, p. 62.

104. *Ibid*, Chapter 3, p. 95.

105. Jankowitsch, O., *op. cit.*, p. 13.

106. Guzman, A., *op. cit.*, "How International Law Works", Chapter 2, p. 33.

the cost of reputational sanction, support is lent to the statement that "Peer review is not at all a soft tool really".[107]

Also of importance to inducing compliance is the fact that not all treaty states have nuclear power plants. Non-nuclear states "may have a stronger interest in ensuring effective oversight of non-complying Parties than the nuclear powers who effectively dictated its terms"[108] and their presence reduces the incentives to weaken the regime or tolerate non-compliance on a *quid pro quo* basis. At the same time, other factors have contributed to the improvement of safety, including industry procedures such as those promoted by the World Association of Nuclear Operators,[109] the operational safety review team programme operated by the IAEA, the existence of other international legal obligations to prevent transboundary harm[110] and the imposition of liability for third party damage on nuclear operators.[111]

However, as Guzman observes, because "informational issues affect payoffs, States have an incentive to attempt to manipulate the information sets of others".[112] As the incentives to renege increase, there will need to be either better information regarding compliance, such as compulsory inspections, for sufficient reputational sanctions to be imposed or other dispute mechanisms incorporated into the treaty, so that the threat of reciprocal or retaliatory sanctions can also be taken into account, thereby altering the payoff structure.

Reputation in the Field of Nuclear Law

The term "reputation" normally refers to the reputation of being a good future treaty partner. In order for a reputational sanction to be effective, the prisoner's dilemma will require the benefits of defection (e.g. financial or political payoffs) to be low and the chances of non-compliance subject to reputational sanctions to be high. The extent to which a state's reputation for compliance with one international treaty is generalised by other states into a reputation for wider compliance with international law remains unclear. However, "the reality is that States have different reputations in different issue areas, but that these reputations are related to each other".[113] The existence of multiple related reputations means that within each area, there are fewer "compliance opportunities" and thus the reputational cost generated by any indiscretion will be higher. This explains why the regime may be more effective in the nuclear field; in trying to ensure compliance with the CNS and the Joint

107. Pelzer, N. *op. cit*., p. 95.

108. Birnie, P. and Boyle, A., *International Law and the Environment*, 2002, Second Edition, Oxford, p. 463.

109. www.wano.org.uk/WANO_Documents/WANO_Mission.asp (last accessed 30 November 2006).

110. Birnie, P. and Boyle, A., *op. cit*. p. 104. Even without the existence of the Conventions, general principles of international law, often expressed as *sic utere tuo ut alienum non laedas*, mean that States have a duty to prevent, reduce and control pollution and environmental harm beyond their national jurisdiction.

111. As required by the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy (as amended), the 1963 Brussels Convention Supplementary to the Paris Convention (as amended), the 1963 Vienna Convention on Civil Liability for Nuclear Damage, the 1997 Protocol to Amend the Vienna Convention or the 1997 Convention on Supplementary Compensation for Nuclear Damage.

112. Guzman, A., *op. cit*., "How International Law Works", Chapter 3, p. 80.

113. Downs, G. and Jones, M., "Reputation and Compliance in International Law", *The Journal of Legal Studies*, Vol. 31, (2002), pp. S95-S114 and Guzman, A., *op. cit*., "How International Law Works", Chapter 3, p. 83.

Convention, states may generate a reputation for compliance across the nuclear field, including with regard to conventions where non-reputational incentives to comply are reduced.

Both the CNS and the Joint Convention are treaties covering activities with relatively high negative effects in the case of non-compliance and with benefits for breach which are likely to be low. Since the chances of negative actions being picked up through the reporting and peer review process are high, the likelihood of being exposed to reputational sanctions in the case of non-compliance is also quite high. Additionally, because the field of nuclear law is quite limited, there are few opportunities for building reputational capital, thus increasing the burden of any transgression. These are all factors which go towards making the current "incentive" convention regime embodied in the CNS and the Joint Convention sufficient to generate meaningful compliance and successfully raise international safety standards.

5) Extension of "Incentive" Convention Concept to Other Areas

Although there have been some calls to adopt an "incentive instrument" modelled on the CNS for a biosecurity convention aimed at preventing unauthorised access to pathogens and regulating germ commerce,[114] there do not yet appear to be widespread calls to adopt this structure for other types of multilateral conventions. However, in the past decade, there has been considerable concern about state compliance with multilateral environmental agreements (MEA), a concern arising from the burden that the increasing number of international environmental obligations places on states, the growing demand for natural resources combined with a finite supply and the possible unfair economic advantages, states may enjoy by failing to comply with such obligations.[115]

This has lead to concerns about how to create institutional arrangements addressing the problems of implementation, enforcement and dispute settlement arising under MEAs and how to ensure that developing countries have the financial resources to enable them to meet their commitments under such agreements.[116] In this context, one can question whether the "incentive" concept and peer review structure might be useful in trying to address these concerns.

As the analysis in the previous section has shown, the "incentive" structure is highly appropriate for nuclear safety and would likely be appropriate for other environmental issues with similar payoff structures. The nuclear safety conventions are designed to increase safety in a sector with unique properties which facilitate the use of the mechanism. The most important of those properties are the risk of significant domestic harm in the case of an accident and national security. The incentives to defect are weak and can be overcome by the effective information exchange mechanism provided for in the treaties.

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114. Bartletta, M., Sands, A. and Tucker, J., "Keeping Track of Anthrax: The Case for a Biosecurity Convention", *Bulletin of the Atomic Scientists* Vol. 59, No. 3, (2002) p. 58 and Tucker, J., "Preventing Terrorist Access to Dangerous Pathogens: The Need for International Biosecurity Standards", *Disarmament Diplomacy* (2002), p. 66: www.acronym.org.uk/dd/dd66/66op2.htm (last accessed 26 November 2006).

115. Sands, P. and Linehan, J., "Compliance with Multilateral Environmental Agreements: the Climate Change Regime", in: *International Law and Organisation: Closing the Compliance Gap*, Doyle, M. and Luck, E., (eds) Rowman & Littlefield, Oxford, (2004), p. 94.

116. *Ibid*, p. 94.

The structure may, however, be less useful in cases where the non-reputational costs of non-compliance are low. For example, the more the harm is externalised, the greater will be the need for reciprocity and retaliation type sanctions to prompt compliance. If reliance is placed on reputation or peer pressure to generate compliance, then either stronger sanctions for non-compliance will be needed, such as limited recourse to outside arbitration, or the likelihood of being sanctioned will need to be increased, through more descriptive reporting procedures or greater participation of those without a vested interest in the review process.

If we look at the development of the CNS and the Joint Convention, we see that the latter's provisions are slightly stricter so as to take these effects into account. As more of the provisions in the Joint Convention pertain to preventing damage external to the Contracting Party, particularly for the transboundary movement of waste, there will be a greater externalisation of any damage. Additionally, the Joint Convention does not involve national security issues, such as power production, which in the case of the CNS provide strong incentives to maintain safety. These two factors may explain why we see that the enforcement mechanisms under the Joint Convention are stronger and that there is clearer enunciation of the review mechanism. Also, there are provisions allowing for the participation of inter-governmental organisations in the Joint Convention that, although also included, are perhaps less necessary in the CNS, since the role of impartial bystander is to some extent assumed by CNS non-nuclear States.

The extent to which damage is externalised and the importance of the treaty to state interests will likely remain useful for determining which subject areas will successfully benefit from an "incentive" structure. The more a subject area is removed from these factors, the more it will require traditional methods of ensuring compliance.

6) Conclusions

Although the incentive concept as embodied in the Convention on Nuclear Safety and the Joint Convention arose initially out of a limited set of circumstances and may even be interpreted as accidental, it has proved to be a very successful mechanism in promoting the improvement of nuclear safety. The essential features of this concept, as embodied in the conventions, are the relatively weak substantive obligations, the strong requirement to participate in the peer review mechanism and the lack of coercive enforcement provisions. Its success has largely been due to the peer review mechanism.

There are several factors which, in conjunction with the convention structure, promote and facilitate the effective operation of this mechanism in the case of nuclear safety. These factors have been identified as the nature of the harm that the treaties seek to address, the important role played by nuclear power in securing national energy supplies, the existence of other voluntary review mechanisms and the participation in the treaty by states both with and without civilian nuclear facilities. With regard to the nature of the harm, an important factor is that a large proportion of the harm is likely to be suffered domestically, thus reducing the tendency for states to externalise the damage. The coincidence of all these factors means that although there will still be mild incentives for states to escape from their treaty obligations, those incentives can be overcome relatively easily through the use of only a peer review mechanism without resort to stronger enforcement mechanisms.

The application of the concept to other areas, particularly environmental concerns, is more difficult. Since the mechanism is likely to succeed in situations where the incentives for defection are weak, such as where only a small proportion of the damage is externalised, it is unlikely to be effective for global environmental problems where much of the damage caused by any one state is externalised

onto all others (e.g. carbon dioxide emissions). However, if the external damage remains at low to moderate levels in comparison with the domestic damage, the mechanism may still be effective, with the addition of slightly stronger reporting and enforcement measures, such as those found in the Joint Convention. Nevertheless, it must be acknowledged that the concept is likely to enjoy success only in the context of narrowly defined situations, such as nuclear safety. In the absence of such situations, the mechanism is perhaps most appropriate only in cases where broad adherence is a priority and where a stronger agreement cannot be reached without the risk of jeopardizing that adherence.