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International Conventions and their Application to Remediation and Decommissioning after a Nuclear Accident – Is the Current System Adequate?

by

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1. Scope of the Presentation

The IAEA Action Plan on Nuclear Safety[1] requests States to improve the effectiveness of the international legal framework on nuclear safety and nuclear liability.[2] In particular, it requests States parties to the Conventions forming the so-called Family of Nuclear Safety Conventions to explore mechanisms to enhance their "effective implementation" and "to consider proposals made to amend the Convention on Nuclear Safety and the Convention on the Early Notification of a Nuclear Accident". That Family consists of the following Conventions: 1994 Convention on Nuclear Safety (Nuclear Safety Convention – CNS)[3], 1997 Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management (Joint Convention – JC)[4], 1986 Convention on the Early Notification of a Nuclear Accident (Early Notification Convention)[5], 1986 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (Assistance Convention)[6]. Member States to the IAEA are likewise invited to work towards establishing a global nuclear liability regime.

[1] Draft IAEA Action Plan on Nuclear Safety (IAEA Doc. GOV/2011/59-GC(55)/14, 5 September 2011).
[2] Action Plan (Fn. 1) p. 4.
[3] IAEA Doc. INFCIRC/449.
[4] IAEA Doc. INFCIRC/546.
[5] IAEA Doc. INFCIRC/335.
[6] IAEA Doc. INFCIRC/336. The fifth Convention of the Family is the 1979 Convention on Physical Protection of Nuclear Material (IAEA Doc. INFCIRC/274/Rev. 1) which, however, is not referred to in the Action Plan.

The title of this presentation limits its subject to remediation and decommissioning after a nuclear accident. This limitation focuses attention on assessing the Nuclear Safety Convention and the Joint Convention. The Early Notification Convention and the Assistance Convention are designed to facilitate prompt international response to a nuclear accident. That describes an objective which neither currently covers provisions on decommissioning and remediation nor is there a reason to possibly cover it in the future in a correspondingly amended version.

This presentation will therefore deal with the issue whether remediation and decommissioning after a nuclear accident are adequately covered and regulated by the Nuclear Safety Convention and by the Joint Convention. Legally speaking, the presentation shall subsume "remediation and decommissioning after a nuclear accident" under the provisions of both Conventions with a view to examining if and to which extent those activities are regulated. This task first of all requires definitions of the activities under discussion.

2. Current Legal Situation

2.1. Decommissioning

2.1.1. Nuclear Safety Convention

The Nuclear Safety Convention does not define the concept of decommissioning. This suggests referring to the meaning of the term in general language. The Online Oxford Dictionary defines the term "decommissioning" in general language as:

"withdraw something from service, make (a nuclear reactor) inoperative and dismantle it safely".[7]

Hence, decommissioning encompasses those actions which are meant to stop a defined activity and to ensure that it cannot be resumed. It marks the definitive end of the operation and of the useful life of a nuclear facility in a safe manner. It includes, as the case may be, the closure or the dismantling of the facility.

This general definition is also suitable for application to the Nuclear Safety Convention. Pursuant to Article 2 (i) CNS a nuclear installation ceases to be a nuclear installation

"when all fuel elements have been removed permanently from the reactor core and have been stored safely in accordance with approved procedures, and a decommissioning programme has been agreed by the regulatory body" (emphasis by the author).

Among the various phases of the life of a nuclear installation as listed in the obligations under Articles 17 – 19 CNS, namely siting, design, construction and operation, decommissioning

[7] http://oxforddictionaries.com/definition/english/decommission?q=decommissioning.

would be the final stage. But the Nuclear Safety Convention, in its operative part, does not contain an obligation concerning decommissioning and does not regulate the end-phase of a nuclear installation. The Nuclear Safety Convention's application is limited to the lifetime of a nuclear installation.[8] Therefore provisions on decommissioning are missing in the Convention.

2.1.2. Joint Convention

Subject-matter of the Joint Convention is the safe management of spent fuel and of radioactive waste. The Convention deals with a defined area of the back-end of the fuel cycle. The drafters of the Joint Convention recognized that there would be a major gap in the system of nuclear safety conventions if the Joint Convention, like the Nuclear Safety Convention, also excluded decommissioning from its scope of application. Since decommissioning is likewise a "back-end activity", the Joint Convention should be the appropriate instrument to regulate that activity. On the other hand, within a regime to govern spent fuels and radioactive waste, decommissioning of facilities is an alien element. So the drafters used a trick: They extended the definition of "radioactive waste management" to include "decommissioning activities" (Article 1 (i) JC):[9]

"'radioactive waste management' means all activities, including decommissioning activities, that relate to the handling, pretreatment, treatment, conditioning, storage or disposal of radioactive waste, excluding off-site transportation. It may also involve discharges."

Article 2 (b) JC defines decommissioning as follows:

"'Decommissioning' means all steps leading to the release of a nuclear facility, other than a disposal facility, from regulatory control. These steps include the processes of decontamination and dismantling."

The term "nuclear facility" is defined as follows (Article 2 (f) JC):

"'Nuclear facility' means a civilian facility and its associated land, buildings and equipment in which radioactive materials are produced, processed, used, handled, stored or disposed of on such a scale that consideration of safety is required;"

These are precise legal definitions for the purposes of the Joint Convention which clarify the subject to be regulated under the Convention.[10]

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[8] The obligations shall, as appropriate, ensure the safety of an installation "throughout its life", see Articles 11 – 14 CNS.

[9] On the drafting history of the Joint Convention see: *Wolfram Tonhauser / Odette Jankowitsch*, The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, in: Nuclear Law Bulletin No. 60 (December 1997) pp. 9 – 22 (16).

[10] The definitions of lawyers and technical experts of the very same subject often differ from each other with regard to language and sometimes also with regard to the content. This is apparently due to the fact that they serve different purposes. See *e. g.* the technical definitions of the IAEA of decommissioning and remediation in: Integrated Approach to Planning the Remediation of Sites Undergoing Decommissioning. IAEA Nuclear Energy Series No. NW-T-3.3, Vienna: 2009, definitions "decommissioning" and "remediation" p. 3 fn. 2 and 3, at:

The operative part of the Convention expressly addresses decommissioning in several Articles. However, all but one of those Articles only apply to spent fuel management facilities and to radioactive waste management facilities respectively: At the design stage of those facilities "conceptual plans and, as necessary, technical provisions for the decommissioning" have to be taken into account (Articles 7 (ii), 14 (ii)); pursuant to Articles 9 (vii) and 16 (viii), which cover the "operation of facilities", "decommissioning plans" have to be prepared and updated, as necessary.

The only provision which addresses all types of facilities, namely the "nuclear facility", is Article 26 JC. The Article is the decommissioning provision for all types of nuclear facilities including nuclear installations in the meaning of the Nuclear Safety Convention (Article 2 (i) CNS). With regard to nuclear installations (= land-based civil nuclear power plants) the provision thus forms the link to, or the "transit" from, the Nuclear Safety Convention to the Joint Convention. It has to be admitted that this legal structure is extraordinary and does not support the transparency of the regime.

Article 26 JC establishes the obligations of the Contracting Parties on decommissioning as follows:

"Decommissioning
Each Contracting Party shall take the appropriate steps to ensure the safety of decommissioning of a nuclear facility. Such steps shall ensure that:
(i) qualified staff and adequate financial resources are available;
(ii) the provisions of Article 24 with respect to operational radiation protection, discharges and unplanned and uncontrolled releases are applied;
(iii) the provisions of Article 25 with respect to emergency preparedness are applied; and
(iv) records of information important to decommissioning are kept."

The obligation is equally ranked with the other obligations of the Convention. In line with the Convention's incentive nature Article 26 does not provide a detailed set of obligations but is limited to establishing more general requirements.[11]

2.2. Remediation

Regarding "remediation", the Online Oxford Dictionary offers the following definition:

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http://www-pub.iaea.org/MTCD/publications/PDF/Pub1385_web.pdf; Remediation of Sites with Mixed Contamination of Radioactive and Other Hazardous Substances, Technical Reports Series No. 442, Vienna 2006, definition of "remediation" p.1, at: http://www-pub.iaea.org/MTCD/publications/PDF/TRS442_web.pdf; Remediation of Sites with Dispersed Radioactive Contamination, Technical Reports Series No. 424, Vienna 2004, definition of "remediation" p. 1, at: http://www-pub.iaea.org/MTCD/publications/PDF/TRS424_web.pdf.

[11] On the incentive character of the nuclear safety conventions see: *Tammy de Wright*, The "Incentive" Concept as Developed in the Nuclear Safety Conventions and its Possible Extension to Other Sectors, Nuclear Law Bulletin No. 80 (2007/2) pp. 29 – 47.

"the action of remedying something, in particular of reversing or stopping environmental damage".[12]

Remediation aims at making good or mitigating impairment of the environment caused by nuclear activities including decommissioning of nuclear facilities. It is an activity which is close to, or may even overlap with, compensation of nuclear damage under the law of the nuclear liability conventions. The civil nuclear liability regimes provide rules to compensate individual nuclear damage which can be attributed to an individual victim, while remediation shall remedy nuclear damage to "common goods" which cannot be attributed to individual victims. It follows that the "claimant" in remediation cases is not an individual victim but somebody who, in accordance with the law applicable, "represents" the common goods. This may be the State or defined governmental or non-governmental organisations. The person "liable", however, *i.e.*, the person to pay for the damage caused, in both cases is the polluter.[13]

Provisions on remediation cannot be found in the nuclear safety conventions. They deal with the regulation of preventive measure only to assure safe operation and safe disposal of the installations and the materials after the end of their lifetime. The Nuclear Safety Convention and the Joint Convention are designed to prevent consequences of nuclear activities which might require remediation but they do not regulate remediation if damage is caused. The concept of remediation is not an element of those conventions.

In summarizing, the so-called Family of Nuclear Safety Conventions does not contain provisions on remediation.[14]

Nevertheless, remediation is linked to regimes on prevention. In order to recognize that link, it may be useful to study the EU Directive 2004/35/CE of 21 April 2004 on Environmental Liability with regard to the Prevention and Remedying of Environmental Damage.[15] The Directive establishes an elaborate prevention and remediation scheme at EU level. It combines "Preventive action" (Article 5) with "Remedial action" (Article 6). Whenever there is an imminent threat of environmental damage the operator shall take the necessary preventive measures. Where environmental damage has occurred the operator has to take the necessary remedial measures. Remediation is based on public law duties rather than on civil law obligations. This makes remediation a form of compensation which is designed to compensate damage suffered by the general public and not by an individual or a group of individual victims.

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[12] http://oxforddictionaries.com/definition/english/remediation.

[13] On the relationship of remediation and compensation see: *Norbert Pelzer*, Deliberations on Compensation and Remediation of Nuclear Damage to the Environment, in: Nuclear Law Bulletin No. 86 (2010/2) pp. 49 – 57.

[14] It cannot be excluded that certain nuclear accident scenarios allow remediation based on international instruments other than the nuclear safety conventions or even on international custom. This option is beyond the scope of this contribution and cannot be discussed here. Reference has to be made to the textbooks on international environmental law, as, *e.g.*, *Michael Bowman / Alan Boyle* (eds.), Environmental Damage in International and Comparative Law, Oxford 2002; *Tarcísio Hardman Reis*, Compensation for Environmental Damage under International Law, AH Alphen aan den Rijn 2011.

[15] Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on Environmental Liability with regard to the Prevention and Remedying of Environmental Damage as amended by Directives 2006/21/EC and 2009/31/EC (O. J. EU 2004 L 143 p. 56; 2006 L 102 p. 15; 2009 L 140 p. 114).

In this context, core definitions of the Directive are:

"Preventive measures" (Article 2 (10)):

"10. "preventive measures" means any measures taken in response to an event, act or omission that has created an imminent threat of environmental damage, with a view to preventing or minimising that damage; ..."

"Remedial measures" (Article 2 (11)):

"11. 'remedial measures' means any action, or combination of actions, including mitigating or interim measures to restore, rehabilitate or replace damaged natural resources and/or impaired services, or to provide an equivalent alternative to those resources or services as foreseen in Annex II; ..."

Annex II to the Directive which is referred to in the provision sets out the most appropriate measures to ensure the remedying of environmental damage. Paragraph 1 differentiates between 'primary', 'complementary', 'compensatory' remediation and 'interim losses', which form a graded scheme of compensation.

2.3. Excursus on Civil Nuclear Liability

It has been stated that remediation is close to, or even overlaps with, nuclear liability. In order to justify this statement, a brief excursus on civil nuclear liability law shall be provided.

Civil nuclear liability law is at the international level governed by a number of international conventions, namely the 1960 Paris Convention as revised, the 1963 Vienna Convention as revised and the 1997 Convention on Supplementary Compensation for Nuclear Damage.[16] These conventions establish a civil law regime and provide basic rules on civil liability for nuclear damage. Their concepts and to a large extent their wording are identical.

In case of a nuclear incident which causes nuclear damage to a person the victim has a claim for compensation against the operator of the nuclear installation where the nuclear incident occurred. The operator is held liable without a need to prove that there is fault on his part

[16] [Paris] Convention on Third Party Liability in the Field of Nuclear Energy of 29 July 1960, as amended by the Additional Protocol of 28 January 1964 and by the Protocol of 16 November 1982 (1960 Paris Convention – 1960 PC) (http://www.oecd-nea.org/law/nlparis_conv.html); Protocol of 12 February 2004 to Amend the Paris Convention (2004 Paris Convention) (http://www.oecd-nea.org/law/paris_convention.pdf)(the Protocol is not yet in force); Vienna Convention on Civil Liability for Nuclear Damage of 21 May 1963 (1963 Vienna Convention – 1963 VC) (IAEA Doc. INFCIRC/500); Protocol of 29 September 1997 to Amend the Vienna Convention (1997 Vienna Convention) (IAEA Doc. INFCIRC/566 Attachment); Joint Protocol of 21 September 1988 Relating to the Application of the Vienna Convention and the Paris Convention (Joint Protocol – JP) (IAEA Doc. INFCIRC/402); Convention on Supplementary Compensation for Nuclear Damage of 12 September 1997 (CSC) (IAEA Doc. INFCIRC/567) (the CSC is not yet in force).

(strict liability). The operator is exclusively liable, no other person can be held liable for that damage (legal channelling of liability onto the operator).[17]

The compensable nuclear damage is defined as follows:[18]

"'Nuclear Damage' means -
(i) loss of life or personal injury;
(ii) loss of or damage to property;
and each of the following to the extent determined by the law of the competent court -
(iii) economic loss arising from loss or damage referred to in sub-paragraph (i) or (ii), insofar as not included in those sub-paragraphs, if incurred by a person entitled to claim in respect of such loss or damage;
(iv) the costs of measures of reinstatement of impaired environment, unless such impairment is insignificant, if such measures are actually taken or to be taken, and insofar as not included in sub-paragraph (ii);
(v) loss of income deriving from an economic interest in any use or enjoyment of the environment, incurred as a result of a significant impairment of that environment, and insofar as not included in sub-paragraph (ii);
(vi) the costs of preventive measures, and further loss or damage caused by such measures;
(vii) any other economic loss, other than any caused by the impairment of the environment, if permitted by the general law on civil liability of the competent court,
in the case of subparagraphs (i) to (v) and (vii) above, to the extent that the loss or damage arises out of or results from ionizing radiation emitted by any source of radiation inside a nuclear installation, or emitted from nuclear fuel or radioactive products or waste in, or of nuclear material coming from, originating in, or sent to, a nuclear installation, whether so arising from the radioactive properties of such matter, or from a combination of radioactive properties with toxic, explosive or other hazardous properties of such matter."

In the context of this presentation, nos. (iv) and (v) of the definition deserve special attention. They address environmental damage which is individualized and which can be attributed to a defined victim. No. (iv): If a person restores impaired environment, *e.g.* by buying and importing certain lost species of animals, he may claim compensation of the costs from the operator liable. No. (v): An owner of a beach hotel looses clients because the beach is contaminated; he has a claim against the operator for this loss of income. If, however, a State prohibits entering certain regions in order to support the rehabilitation of the impaired environment, it is questionable whether the costs of this measure can be compensated under civil nuclear liability law. This measure would rather be qualified as remediation. The State

[17] An overview of nuclear liability is, *e.g.*, provided by *Julia A. Schwartz*, Liability and Compensation for Third Party Damage resulting from a Nuclear Incident, in: *OECD/NEA* (ed.), International Nuclear Law: History, Evolution and Outlook, Paris 2010 pp. 307 – 354. See also the contributions by *Norbert Pelzer, Sebastiaan Reitsma* and *Mark Tetley*, *ibidem* pp. 355 – 416.

[18] This language is taken from Article I (1) 1997 VC which is identical with the respective definitions of Article 1 (a) 2004 PC and Article I CSC with the exception of the head of damage under no. (vii) that is not contained in the 2004 Paris Convention.

may request compensation from the polluter/operator. But such payment would not exempt the operator from compensating economic losses under civil law which individuals may suffer because they are prohibited to enter that region.

The examples show that the delimitation of remediation and civil liability law may be floating and may cause problems. This holds particularly true since in the territories of States the land and nearly every other thing are in somebody's property ownership. What is called impairment of the environment is mostly damage to property for which compensation may be claimed under civil nuclear liability law. Actually, this broad scope of application of civil nuclear liability law restricts the areas where remediation to complement civil liability law compensation is needed and can be applied. Prior to embarking on an exercise to amend the current regime this issue requires in-depth investigation in order to define the possible scope of application of rules on remediation.

2.4. Decommissioning and Remediation after a Nuclear Incident

The IAEA Action Plan introduces another element to the discussion: Decommissioning and remediation shall be dealt with "after a nuclear incident". Since the current versions of the safety conventions do not contain provisions which regulate remediation, only accidental decommissioning can be dealt with.

Decommissioning is regulated in a very general and thus in a comprehensive way. Article 26 JC may be applied to normal situations when an installation comes to the planned end of its operating lifetime, but the provision is also applicable to unplanned accidental situations which entail decommissioning. The scenarios to be regulated are different, though: After an accident the facility is probably damaged or even destroyed. Unplanned radioactive releases and off-site contamination will occur. The threat of damage to man, property and the environment is imminent. In short, the detrimental impact on the neighbourhood and on the environment will most probably be severe. This brings the provisions of the conventions on radiation protection and on emergency response into play. There has to be interplay between the provisions on decommissioning, on radiation protection and on emergency response.

The drafters of the Joint Convention made a most prudent decision. They foresaw accidental decommissioning and drafted the obligation under Article 26 JC in a way which allows coping with accidental situation, too. According to Paragraphs (ii) and (iii) Contracting Parties have to ensure that Article 24 JC with respect to operational radiation protection, discharges and unplanned and uncontrolled releases and Article 25 JC with respect to emergency preparedness are applied. Complying with those provisions is an integral part of the decommissioning procedure. There is interplay between the various provisions of the Joint Convention.

However, the prudent decision of the drafters has gaps: Articles 24 and 25 which Article 26 refers to only apply to spent fuel management facilities and to radioactive waste management

facilities respectively. They are not applicable to other nuclear facilities. In the case of accidental decommissioning of land-based civil nuclear power plants covered by the Nuclear Safety Convention one has to fall back to the respective obligations under Articles 15 and 16 of that Convention in order to ensure radiation protection and emergency preparedness. Building tacitly on provisions of the Nuclear Safety Convention is, however, a questionable legal approach as long as the reference is not expressly stipulated in Article 26 JC. The other option would be to apply Articles 24 and 25 JC correspondingly to other nuclear facilities. But in substance this interpretation would either mean to make the operator of the nuclear installation subject to Articles 24 and 25 JC or to build on trust that the operator is in compliance with Articles 15 and 16 CNS. In any case, this marks an unsatisfactory legal situation.

As to other nuclear facilities not covered by the Joint Convention or by the Nuclear Safety Convention there are no binding provisions on radiation protection and emergency preparedness within the Family of Nuclear Safety Conventions which could be applied to decommissioning after an accident in order to complement Article 26 Joint Convention. In these cases reference has to be made to the general legal regime of radiation protection.

2.5. Summary

Decommissioning

Article 26 of the Joint Convention is the relevant provision for decommissioning of installations. Beyond the general scope of application of the Joint Convention this provision covers all nuclear facilities including nuclear installations in the sense of the Nuclear Safety Convention. The provision is also designed to cope with decommissioning as a consequence of a nuclear accident. But the legal structure is fairly complicated if facilities other than facilities for the management of spent fuels and radioactive waste are involved. This may contribute to legal uncertainty.

Remediation

The conventions forming the so-called Family of Nuclear Safety Conventions do not contain provisions on remediation of environmental damage caused by a nuclear accident. Compensation of nuclear damage is governed by the international nuclear liability conventions. These conventions establish a civil liability regime to compensate nuclear damage which is suffered by individual victims including damage consequential to an impairment of the environment. The liability conventions do not remedy damage to the environment which cannot be attributed to an individual person but is a *res communis omnium*, a common good. This is the area where remediation may and should complement civil liability law.

3. Considerations on Amending the Current Regime

The Action Plan suggests considering possible amendments to the Nuclear Safety Convention. As a matter of fact, the current legal framework is not satisfactory and necessitates improvement: The rules on decommissioning require clarification; remediation is not at all governed by the nuclear safety conventions. Amending the Nuclear Safety Convention and the Joint Convention respectively appears to be an obvious option.

There already exist a number of proposals to amend the Nuclear Safety Convention.[19] However, they only deal with improving the Review Process, the National Reports and the Rule of Procedure and Financial Rules.[20] Neither do proposals for amendments made by Switzerland and Russia address decommissioning and remediation.[21]

Amending or newly drafting an international treaty is a highly sensitive exercise. It has to be assured that a sufficient number of States are interested in the exercise in order to make it successful. In case an amendment of the Nuclear Safety Convention or the Joint Convention is envisaged there should be reliable assurance that the quorum will be available to meet the requirements for amendments under Article 32 CNS and Article 41 JC.

Regarding their substance, the lacunae of the current legal regime identified in this paper are not insignificant. The complexity of the provisions on decommissioning procedures and the total lack of rules on remediation should provide momentum to embark on a revision exercise. The existing experience, especially the lessons learnt from Three-Mile Island, Chernobyl and Fukushima will provide guidance on which type of regulation is needed. In particular, the outcome of the Fukushima Ministerial Conference on Nuclear Safety held at Fukushima from 15 to 17 December 2012,[22] and the results of this Expert Meeting will contribute substantive input and will support efforts for enhancing the legal regime.

Once the decision is made to improve the legal situation consideration has to be given to the problem whether an amendment of existing instruments or the adoption of a new instrument should be envisaged. The Action Plan talks about amending existing Conventions. That seems to be plausible because the legal problems regarding decommissioning and remediation apparently became evident in connection with the application of the Conventions.

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[19] See Progress in the Implementation of the IAEA Action Plan on Nuclear Safety – Supplementary Information, Nos. 133 – 142 (IAEA Doc. GOV/INF/2012/11-GC(56)/INF/5, 15 August 2012), at: http://www.iaea.org/About/Policy/GC/GC56/GC56InfDocuments/English/gc56inf-5-att1_en.pdf.

[20] IAEA Docs. INFCIRC/571Rev. 4; INFCIRC/572Rev. 3; INFCIRC/573Rev. 4.

[21] See: 2nd Extraordinary Meeting of the Contracting Parties to the Convention of Nuclear Safety, 27 – 31 August 2012, Vienna, Final Summary Report, Annexes N5.41.01 Circ. (IAEA Doc. CNS/ExM/2012/04/Rev.2), at: http://www.iaea.org/Publications/Documents/Conventions/cns-summaryreport310812.pdf.

[22] See the Chairperson Summaries of that Conference; in particular the summary of Working Session 3: "Protection of People and the Environment from Ionizing Radiation" deals with remediation, at: http://www-pub.iaea.org/MTCD/Meetings/PDFplus/2012/20120216/20120216_CSummaries.pdf.

Both the Nuclear Safety Convention and the Joint Convention are the result of difficult negotiations. They show "the characteristics of a political compromise".[23] Their regimes are susceptibly balanced, and any amendment includes the risk of harming that balance. This starting point suggests refraining from amending the Nuclear Safety Convention and the Joint Convention by elements which might infringe on the concept of the Conventions.

While enhancing the decommissioning regime appears to be an amendment which is not likely to impact on the balance of the conventions, establishing a regime of remediation requires a more robust approach. The objectives of the Nuclear Safety Convention and of the Joint Convention are prevention against nuclear risk and nuclear damage. Although the example of the EU Environmental Liability Directive shows that there is a connecting link to accident prevention, the inclusion of a remediation regime would add another objective which has nothing to do with the original objective of the Conventions. This substantial change of the base of the Conventions might put their compromise solutions with their innovative incentive character at high risk. Moreover, there are doubts as to whether remediation can be established without any sanctions. Sanctions would not comply with the incentive nature of the Conventions.

It follows that the decommissioning provisions may be enhanced by an amendment to the existing instruments. But it seems to be advisable to establish a potential international remediation regime in a distinct new convention. Remediation needs money, and only for that reason negotiations on establishing a respective international instrument will be difficult. The current legal situation calls for enhancement. So we should not loose time and start the exercise as quickly as possible. Following an approved practice it is suggested convening an expert group of technical experts and lawyers to prepare the ground for improving "the effectiveness of the international legal framework"[24] on decommissioning and remediation.

[23] *Günther Handl*, The IAEA Nuclear Safety Conventions: An Example of Successful "Treaty Management"?, in: Nuclear Law Bulletin No. 72 (December 2003) pp. 7 – 27 (27).
[24] Action Plan (fn. 1) p. 4.