THE RELATIONSHIP BETWEEN ENVIRONMENTAL LAW AND NUCLEAR LAW

IAEA Nuclear Law Institute  
2nd Session, 27 September 2012

Sam Emmerechts  
Senior Adviser Market Design - GDF SUEZ  
Former Senior Legal Adviser - OECD/Nuclear Energy Agency

WHAT HAPPENS WHEN …

Anti-nuclear NGO approaches the operator of a NPP and asks to have a look at the latest nuclear safety inspection report.

Actors involved:
- Anti-nuclear NGO
- operator of the plant
- nuclear safety regulator
ENVIRONMENTAL ISSUES
WHY YOU NEED TO PAY ATTENTION

Two essential questions:

1. Does Nuclear Law protect the Environment?

2. Does Environmental Law apply to Nuclear Activities?
NUCLEAR LAW AND ENVIRONMENTAL PROTECTION

Nuclear Law has started to protect the environment … but it is still in its infancy!

DOES NUCLEAR LAW PROTECT THE ENVIRONMENT?

Nuclear Law provides different lines of defense against environmental damage:

I. Prevention of nuclear accidents

II. Effective damage mitigation through improvement of emergency response performance

III. Compensation of environmental damage caused by a nuclear accident
FIRST LINE OF DEFENCE AGAINST ENVIRONMENTAL DAMAGE: PREVENTION OF NUCLEAR ACCIDENTS

A. International Treaties
- Nuclear Safety Convention (1994)
- Joint Convention on Safety of SF/RW Management (1997)

Aim: Ensure effective defenses against potential radiological hazards to protect individuals, society and the environment from harmful effects of ionizing radiation

B. International Radiation Protection Standards

IAEA Basic Safety Standards for Radiation Protection

SECOND LINE OF DEFENSE AGAINST ENVIRONMENTAL DAMAGE: ENVIRONMENTAL DAMAGE MITIGATION

Nuclear Assistance Convention (1986)

Goal: facilitate prompt assistance if nuclear accident or radiological emergency to minimize consequences and to protect life, property, and environment from the effects of radioactive releases

Early Notification Convention (1986)
Environmental damage, a complex concept:

- The contamination of the marine environment has occurred both through atmospheric fallout or washout with precipitation, and through discharges of contaminated water into the sea.
- Discharge to the marine environment decreased significantly over time since end of March; concluding from the near field concentration measurements, up to now, more than 99% of the activity was discharged between 28th of March and 11th of April.
- There is a further continuous discharge of contaminated water into the marine environment with variable activities and activity ratios between I-131 and the two dominating radio-cesium nuclides.
- TEPCO and MEXT are continuing to conduct programmes for sea water sampling and to perform measurements. Also marine food and several sediment stations are now monitored.

Source: Euronews, 23 August 2012

Extract from: IAEA website, 1 June 2011, Assessment of IAEA Laboratories on Data from the Marine Environment after the Fukushima accident provided by Japan

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CIVIL LIABILITY FOR ENVIRONMENTAL DAMAGE

**Old generation of international nuclear liability regimes:**
- Property damage and personal injury
- No specific reference to environmental damage
- May be compensable as property damage or otherwise

**New generation of international nuclear liability regimes:**
- Cost of measures to reinstate impaired environment
- Loss of income from economic interest in use of environment
- Cost of measures to prevent nuclear damage as defined subject to a range of qualifying elements that are meant to determine to what extent costs shall be compensated
DOES NUCLEAR LAW EFFECTIVELY PROTECT THE ENVIRONMENT?

Traditionally a very anthropocentric attitude
“Protéger l’homme, c’est protéger l’environnement”

Examples:
1. Definition of « radiation protection « in the IAEA Safety Glossary
2. ICRP Recommendations (ICRP Publication 26, 1977)

No effective protection of the environment yet but evolving approach (e.g. ICRP 103, Recommendations 2007)

ENVIRONMENTAL LAW AND NUCLEAR ACTIVITIES

Environmental Law may apply to nuclear activities … but sometimes excludes nuclear activities from its scope
ENVIRONMENTAL LAW

1. Relatively young branch of law

2. Important Environmental Law Principles
   - Principle of Preventive Action
   - Precautionary Principle
   - Polluter Pays Principle
   - Principle of Cooperation or Good-Neighbourliness

3. Objectives
   - Limit activities that are harmful for the environment
   - Assess environmental impact of future activities
   - Ensure compensation/remediation of environmental damage

INTERNATIONAL ENVIRONMENTAL LAW

Stockholm and Rio Declarations of the UN on the Environment (1972 and 1992)

For example, principle 21 of Stockholm Declaration:

- States have sovereign right to exploit their own resources in accordance with UN Charter and international law

- States have the responsibility to ensure that activities within their jurisdiction or control do not cause environmental damage to other States or areas beyond the limits of national jurisdiction

*Non-binding obligations but some reflect rules of customary law, others reflect emerging rules and yet others provide guidance as to future legal developments*
LIMIT ACTIVITIES THAT ARE HARMFUL FOR THE ENVIRONMENT

International treaties, a few examples:

- **The London (Dumping) Convention (1972 and 1996)**
  Prohibits dumping of radioactive waste at sea

  Signatories to “minimize to the fullest possible extent... the release of toxic, harmful or noxious substances, especially those which are persistent.”

- **Convention on Civil Liability for Damage caused during Carriage of Dangerous Goods by Road, Rail, Inland Navigation Vessels (1989)**
  Does not apply to nuclear activities

ENVIRONMENTAL IMPACT ASSESSMENTS (EIA)/STATEMENTS (EIS)


- Parties now include most States of Europe and Central Asia (2011 Russia expressed intent to ratify)
- Covers various activities including nuclear (e.g. construction NPP, extension of RW repository, etc)
- Applies in a national context
- Aarhus gives the public a central role in environmental protection:
  (i) access to information about environmental impact (active/passive)
  (ii) participation in environmental decision-making and
  (iii) access to justice
EXAMPLES OF CASE LAW AND PRACTICES

1. **France, Brennilis court case (2007)**
   - Public participation regarding the dismantling of a nuclear research reactor

2. **Belgium, NIRAS court case (2009)**
   - Access to information regarding radioactive waste

3. **Canada, New Brunswick court case (2008)**
   - Access to a feasibility study for construction of a NPP

4. **France, ANCCLI initiative**
   - Association of Local Information Commissions on Nuclear Activities (2000) and High Committee on Transparency and Information on nuclear security (2006)

5. **United Kingdom, Planning Act 2008**
   - Requirement to prepare a Statement of Community Consultation (SOCC) for new infrastructure projects with a significant environmental impact

ENVIRONMENTAL IMPACT ASSESSMENTS (EIA)/STATEMENTS (EIS)

**Espoo Convention on EIA in a Transboundary Context** (UNECE, 1991)

- Parties: Majority of States of Europe/Central Asia but also Canada (2011 Russia expressed intent to ratify)
- Covers various activities including nuclear
- Applies in a **transboundary** context

- Contracting parties are obliged to:
  1. take all appropriate and effective measures to prevent, reduce and control significant adverse transboundary environmental impact from proposed activities
  2. conduct EIAs permitting public participation
  3. notify/consult with contracting parties likely to be affected, and their public, prior to authorizing such proposed activities
ENVIRONMENTAL IMPACT ASSESSMENTS (EIA)/STATEMENTS (EIS)

Convention on Biological Diversity
(Non-UNECE Convention, 1992)

- Over 190 Contracting Parties
- Also applies to nuclear activities
- Extremely soft legal wording for EIA and public participation

“Each contracting party shall, as far as possible and as appropriate, introduce EIA of its proposed projects […] and, where appropriate, allow for public participation.”

EXAMPLES OF CASE LAW AND PRACTICES

1. International Court of Justice, Argentina v. Uruguay, 2010
   Pulp Mills Case on Transboundary Water Courses

2. United States:
   - San Luis Obispo Mothers for Peace v. NRC (2006)
   - New Jersey Dept. of Environmental Protection v. NRC (2009)

3. Finland, Loviisa 3 NPP – consulting non-contracting parties and their public prior to constructing nuclear facilities
STRATEGIC ENVIRONMENTAL ASSESSMENTS

Kiev Protocol On Strategic Environmental Assessment
(SEA Protocol, 2003)

• Covers various activities including nuclear
• Contracting Parties are obliged to evaluate environmental consequences of official draft plans/programmes ("upstream")

Example: selection of methodology for long term management of radioactive waste

• Assessment made very early in decision-making process, when all options are still open
• Extensive public participation in government decision-making

EXAMPLE OF CASE—LAW

United Kingdom, Greenpeace v. Secretary of State of Trade and Industry (2007)

• 2003 Energy White Paper
  “There will be the fullest possible public participation prior to decision of new build”

• 2006 Government report
  “Government has taken the decision to support nuclear” but … neglected to organise the fullest possible public participation beforehand

• High Court judgment (2007)
  granted an order quashing the government’s decision for breach of legitimate expectations on public participation in nuclear power policy making
IMPORTANCE OF STAKEHOLDER INVOLVEMENT: LESSONS OF FUKUSHIMA

Role of stakeholder involvement and participatory democracy will increase drastically in democratic countries:

- Major decisions require broad public support to be acceptable.
- Communication and consultation, not just information, are essential.
- Those affected and those with responsibility for implementation must be involved in decision processes regarding rehabilitation.

1. Participation by the public and local communities helps to build public trust and confidence but is time-consuming and right to be consulted is right to decide.
2. Which role for stakeholder involvement in centrally planned countries!? 

COMPENSATION/REMEDICATION OF ENVIRONMENTAL DAMAGE

International treaties, a few examples:

Convention for the Protection of the Marine Environment for the North-East Atlantic (OSPAR 1992)

- Obliges Contracting Parties to take all possible steps to prevent and eliminate pollution of the maritime area
- Also applies to radioactive substances, including waste


- Aims to hold operators whose activities have caused damage to soil, water and biodiversity financially liable for remediation (strict and fault-based liability)
- Currently excludes nuclear activities if covered by an international nuclear liability/compensation convention (evaluation by April 2014)
STATE LIABILITY FOR ENVIRONMENTAL DAMAGE

Example:
Nuclear incident in State A causes environmental damage in State B. Can the Government of State A be held liable?

A few sources of information:
- Stockholm and Rio Declarations
- 2001 draft Articles on State Responsibility of the UN Commission for International Law
- Trail Smelter arbitration case of ICJ (1941)
- Corfu Channel case of ICJ (1949)
- Lac Lanoux case of ICJ (1957)
- French Nuclear Tests cases of ICJ (1996)
- MOX plant case (2001-2007)

Fukushima, an earthquake followed by a tsunami: Is it nuclear activities that cause environmental damage or is it the environment that is causing nuclear damage?
CONCLUSION

- Environmental Law and Nuclear Law basically share the same objectives:
  - Protection against environmental damage
  - Mitigation of environmental damage
  - Compensation of environmental damage

- Environmental protection principles apply to nuclear activities through environmental law … and slowly through nuclear law

- EIA/EIS and access to environmental information provide strong techniques for implementing environmental law principles in nuclear field

- Fukushima accident will significantly enhance the importance of stakeholder involvement & participatory democracy in democratic countries … growing need for development & implementation of adequate legal frameworks … but after Fukushima most nuclear development may take place in centrally planned countries.

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