

***Stakeholders and Radiological Protection:
Lessons from Chernobyl 20 Years After***
and
International Nuclear Law in the Post-Chernobyl Period

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Background note

The Chernobyl accident in April of 1986 was unprecedented in many aspects, and significantly marked the world and the nuclear power community. Over the last 20 years, a large body of work has been produced at the OECD Nuclear Energy Agency (NEA) as a direct result of the accident. This year, the Agency is releasing two new reports drawing attention to two important areas: involvement of local stakeholders (including families) in the long-term management of radiological effects; and improvements to the international regime governing the peaceful uses of nuclear energy.

The first report summarises the lessons that the radiological protection community has learnt to help improve living conditions in the areas affected by the accident. Through a study of the efforts of radiological protection experts with Chernobyl-affected populations in Belarus, Norway and the United Kingdom, the report shows the relevance of key lessons for emergency preparedness and crisis management in OECD countries. The study on stakeholders and radiological protection, like many NEA reports, was prepared by a working group of nominated experts from the Committee on Radiation Protection and Public Health.

The second report is a compendium of articles on international nuclear law initiatives since the Chernobyl accident. It comprises articles which have been written by international and member country experts from our member countries covering a wide range of nuclear law topics. It is being published at the request of the NEA's Nuclear Law Committee, jointly with the International Atomic Energy Agency (IAEA).

Previous NEA reports on Chernobyl

Since the Chernobyl accident in April 1986, the NEA has put considerable effort into identifying the lessons learnt in many areas, particularly nuclear safety, emergency preparedness and response, post-accident rehabilitation capabilities, and liability and compensation. To date, the NEA has issued over 60 reports in these areas aimed at helping member countries improve their management of risks and preparedness for accidents.

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Today, 20 years later, two areas of work are still relevant: radiological protection and international nuclear law. Although the area of nuclear safety, which focuses on the prevention of accidents and the environmental release of radioactivity, has been extensively studied, NEA work now focuses on its emergency planning and crisis management experience, which has more directly influenced the development of its latest report.

In this regard, the NEA has principally studied three areas:

- the nature and magnitude of the impacts of the accident;
- the international aspects of nuclear emergency preparedness and management; and
- the involvement of stakeholders in radiological protection decision framing and decision making.

Studying the types of impacts, and the variety of responses that would be necessary, has shed much light on how to best be prepared to act. In this regard, the NEA has developed a broad overview of the health and environmental impacts in the former Soviet Union and OECD countries through two reports: *Chernobyl Ten Years On: Radiological and Health Impacts* (1995), and *Chernobyl: Assessment of Radiological and Health Impacts, 2002 Update of Chernobyl Ten Years on* (2002).

In parallel with these efforts, the NEA has also placed considerable emphasis on how to improve the operational and policy aspects of nuclear emergency preparedness and response. Since 1993, the NEA has initiated and co-ordinated four series of International Nuclear Emergency Exercises (INEX). These exercises improved the quality and co-ordination of emergency response systems through the testing and analysis of arrangements and new concepts, and assessing the adequacy of liability and compensation measures for nuclear damage. Experiences and lessons identified in the areas of international co-ordination, operational response arrangements and countermeasures, technical and public information, liability and longer-term consequence management have helped countries to improve their emergency response arrangements.

Stakeholders and Radiological Protection: Lessons from Chernobyl 20 Years After

Another related topic identified by the NEA in the early 1990s is the need to better consider input from stakeholders in the assessment and management of radiological risks. This aspect was discussed extensively during three workshops held in Villigen, Switzerland (in 1998, 2001 and 2003). These discussions led the radiological protection community to clearly understand the need to better integrate radiological protection science into broader societal risk assessment and management processes. A key point that emerged from these three workshops is that stakeholder involvement is central to the resolution of complex radiological protection situations. When considering the complexity of the response to the Chernobyl accident, particularly in the longer-term rehabilitation of living conditions, the need for stakeholder involvement is a central issue. This was clearly illustrated by the ETHOS Project in the late nineties and the present CORE International Programme implemented in the contaminated territories of Belarus.

The rehabilitation of areas affected by the Chernobyl accident has been marked by its complexity. Even 20 years later, uncertainty remains with respect to the exact extent and nature of all the human and environmental consequences caused by the accident. The extremely uneven nature of environmental contamination and the variability of levels that can be found in locally grown foods continue to challenge even the detailed characterisations. More difficult and intangible are the accident's social effects. These influence virtually every aspect of living conditions in the affected areas. Attempts to manage this complexity, initially through top-down approaches gradually evolving to more locally driven and individually focused initiatives, has proven to be as multi-dimensional as the situation itself.

It is the experience of radiation professionals working with stakeholders in the contaminated territories of Belarus, as well as Norway and the United Kingdom, that has allowed the development of the knowledge being presented today. From this knowledge, the important lessons and experience can be applied to improving the lives of those most affected by the Chernobyl accident. They can also assist national governments to best be prepared to address any future, large-scale and long-lasting contamination event that could occur, be it from industrial accidents or terrorist attacks.

International Nuclear Law in the Post-Chernobyl Period

The accident at the Chernobyl nuclear power plant was to have a decisive influence on the development of international nuclear law over the following two decades.

Within six months of the accident, a convention on early notification of a nuclear accident and a convention on assistance in the event of a nuclear accident or radiological emergency were negotiated and adopted under the auspices of the International Atomic Energy Agency. In 1988, a joint protocol forming a bridge between the two existing international nuclear liability regimes (Paris/Brussels Conventions; Vienna Convention) was established. 1994 saw the adoption of a convention establishing international benchmarks for nuclear safety, followed by a convention on the safety of spent nuclear fuel and radioactive waste management in 1997. The existing international regimes governing liability for nuclear damage have been significantly reinforced and a new global regime created.

The purpose of this compendium, jointly produced by the OECD Nuclear Energy Agency and the International Atomic Energy Agency, is to provide thoughtful analysis on each of the above instruments, demonstrating the extent to which progress has been made and identifying areas in which further improvement would be desirable. It reproduces a number of articles which have been published in the OECD/NEA *Nuclear Law Bulletin*, accompanied by some previously unpublished works. It also summarises the practical steps taken by the respective international organisations that support the international legal framework.