

**Activities undertaken by International Atomic Energy Agency (IAEA) in 2007,
regarding maritime safety in the context of environmental protection against
radioactive materials entering the sea.**

1. Increased attention to the vulnerability of the environment and the need to protect against hazardous industrial pollutants has been reflected in new international policies, legal instruments and agreements, including the Declaration of the United Nations Conference on Environment and Development (1992). Historically, the risk assessment and management of radionuclides entering or present in the environment was generally based on human health considerations alone. Recently, the approach has been expanded to include the impact on non-human species as well. While reports indicate that controlled releases of man-made radionuclides and exposure to environmental radiation have not had any obvious deleterious effects on other organisms, the impact of accidents and past radioactive waste management on non-human species is still under examination.

2. In this regard, during 2007, the IAEA continued working together with national and international organizations within the *Plan of Activities on the Radiation Protection of the Environment*, approved in 2005 by its Board of Governors (GOV/2005/49). The main aims of this Plan of Activities are to follow up on the findings of the Stockholm Conference with a view to (i) promoting collaborative work by relevant international organizations that enhances current approaches in radiation protection by taking explicit account of non-human species in developing an approach for the assessment and management of radionuclides entering or present in the environment and (ii) providing assistance to Member States in their efforts to protect the environment by (a) development of a framework and methodologies to assess radiation impacts on biota, and (b) review of the corpus of radiation safety standards related to the assessment and management of radionuclides entering or present in the environment and revising them, as appropriate. Under this Plan, the 2nd Meeting of the Coordination Group took place in Paris, February 2007. The meeting was attended by participants from seven international organizations (EC, IAEA, ICRP, IUR, OECD-NEA, UNSCEAR/UNEP and WNA) and seven IAEA Member States (Australia, France, Germany, Japan, Spain, Sweden and the United Kingdom), all of which are active in the field of radiation protection of the environment. A non-governmental organization, Greenpeace, also attended as an observer.

3. The IAEA's role in providing authoritative advice and services on matters related to radioactive material in the marine context has been formally recognized by the Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention). The IAEA also cooperates with other regional conventions like the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) and the Helsinki Convention on the protection of the marine Environment of the Baltic Sea (HELCOM).

4. In this capacity, the IAEA has elaborated for the OSPAR Radioactive Substances Committee (February 2007) and to the 29th Meeting of the Contracting Parties to the London Convention (November 2007) the work it is conducting with international organizations like the EC, ICRP, IUR and UNSCEAR in respect of the scientific and regulatory basis for the development and implementation of sound policies.

5. The IAEA has, upon the request of the Contracting Parties to the London Convention, developed and maintained an inventory of radioactive materials entering the marine environment from all sources, including: (a) radioactive waste disposal at sea; and (b) accidents and losses at sea involving radioactive material. The purpose of these databases is to serve as the basis for radiological impact assessment on the marine environment. The last revised reports on the above mentioned inventories were published in 1999 as IAEA TECDOC-1105¹ entitled *Inventory of radioactive waste disposals at sea* and in 2001 as IAEA TECDOC-1242² entitled *Inventory of accidents and losses at sea involving radioactive material*. In November 2006, the IAEA was requested by the Contracting Parties to the London Convention and the Contracting Parties to the London Protocol, under the secretariat provided by the International Maritime Organization (IMO), to embark on updating the databases with any new information which was relevant to the objectives of both agreements. In August 2007, the IAEA, in cooperation with IMO, submitted requests to the competent national authorities, to provide the relevant information for both databases. The IAEA is currently receiving information, which will be analyzed and verified prior to its inclusion in the databases. The updating process is estimated to be concluded during 2008.

6. The IAEA's Marine Environment Laboratory (IAEA-MEL) in Monaco has developed and maintains the Marine Information System (MARIS). The main objective of MARIS is to provide information on the radioactive contamination of the marine environment. MARIS is a web-based Geographical Information System which provides information on the past and present levels of radionuclides in the marine environment and data on supporting oceanographic parameters such as seawater temperature, salinity and sea-bathymetry.

7. IAEA-MEL is also conducting international comparative exercises for national laboratories performing radionuclide measurements in marine samples, including those participating in the OSPAR and HELCOM Conventions.

8. Within its mandate, the IAEA also promulgates international safety standards for the protection of human life and the environment including the *Fundamental Safety Principles* published in 2006 (Safety Standards Series No. SF-1). While explicit requirements on environmental radiation protection have not yet been included at the level of IAEA Safety Requirements (e.g., in the *Basic Safety Standards for Protection Against Ionizing Radiation and the Safety of Sources*, SS-115, 1996), the issue is being considered during the review process that is currently underway.

¹ http://www-pub.iaea.org/MTCD/publications/PDF/te_1105_pm.pdf

² http://www-pub.iaea.org/MTCD/publications/PDF/te_1242_pm.pdf