

ACTIVITIES OF THE IAEA CONCERNING OUTER SPACE

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Abstract

Nuclear accidents are very dangerous for mankind. Accident arising from the use of space objects with NPS are a special category of nuclear accidents. Several documents have been concluded concerning nuclear accidents. The 1986 nuclear accidents Conventions are general and refer to various nuclear accidents including those in outer space. Principles relevant to the use of NPS in outer space which have been accepted by the United Nations in 1992 refer to space objects with NPS and are special. The IAEA has duties arising from the 1986 Conventions. The 1992 Principles do not mention the IAEA but the Secretary-General of the U.N. This difference need not be an disadvantage, as for space objects, because Conventions and Principles supply each other and there is a close connection between the IAEA and the United Nations.

Introduction

The IAEA has played an important role in the field of nuclear

energy. Its activity is especially important in the event of nuclear accidents. The 1986 Convention on early notification of a nuclear accident and the 1986 Convention on assistance in the case of a nuclear accident or radiological emergency were elaborated under the auspices of the IAEA. As it follows from Art. 1 of the former convention it refers to any nuclear accident of the facility of a State Party or of persons or legal entities under its jurisdiction or control. The latter convention also includes in Art. 2 a provision which applies to nuclear accidents originated within the state territory, state's jurisdiction or control. Therefore it seems that both Conventions are applicable to the use of nuclear power sources in outer space.

Both Conventions lay down many functions of the IAEA. For example the IAEA according to Art. 4 of the Notification Convention, shall inform States Parties, Member States, other states which are or may be physically affected. This provision might also concern a space object with NPS if the nuclear accident of space objects may have negative influence on other states.

Besides the 1986 Convention the IAEA performs another activity as for outer space. The IAEA e.g. submitted a proposal concerning Principles relevant to the use of

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nuclear power sources in outer space

Comparison between the 1986 IAEA Conventions and Principles relevant to the use of NPS in outer space, especially from the point of view of the IAEA activities.

The basic difference between Conventions on the one hand and the Principles on the other hand is the legal nature of these documents. The 1986 Conventions are international treaties binding States Parties and tasks arising from these Conventions are binding for the IAEA too./ e.g. Art.4 of the Notification Convention/. Other states than States Parties do not have duties from these Conventions.

Principles relevant to the use of NPS in outer space are included in a U.N. General Assembly resolution and for this reason, they are not legally binding. It is a recommendation to states. But some declarations "include principles that should govern all or some categories of mutual relations among States and other international law persons which effect space activities. The documents, in which these principles have been included, belong to a relatively not numerous series of declarations which have special place among thousands of General Assembly resolutions. The declarations of principles have not only had political meaning and moral weight, they have also become important tools in the development of international law and its codification. By declaring general rules of conduct which should govern international relations, or a certain category thereof, these documents

express a legal conviction of all Members of the world organization, or of a qualified majority thereof, concerning the legal regulation of their particular subject matters for which they establish appropriate bases"/1/. One of these declarations might be that concerning Principles relevant to the use of NPS in outer space.

Another differences between the Conventions on the one hand and the Principles on the other hand we might see in that : Conventions are general and refer to various nuclear accidents, Principles are special and regulate concrete relations in connection with NPS in outer space. This fact may have various consequences, e.g. Notification Convention lays down in Art.1 that the State Party shall forthwith notify in the event of a nuclear accident i.e. after nuclear accident. The Principles concerning NPS in outer space in Principle 5 lay down that any state launching a space object with NPS shall inform in the event that this space object malfunctioning with a risk of re-entry of radioactive materials to the Earth. According to Principle 5 para.2 the launching state shall inform as soon as the malfunctioning has become known. It follows that the launching state will inform in most case before nuclear accident occurs.

Difference between Notification Convention and Principles

For example State Party have according to Art.2/a/ of the Notification Convention the duty to forthwith inform those states which are or may be physically affected. i.e. not only States

Parties and Member states of the IAEA but every state which may be affected. The State Party shall inform the IAEA, too. According to Art. 2/b/, the State Party also promptly provides to the affected states and the IAEA information relevant to minimizing the radiological consequences. The State Party may render all these information directly or through the IAEA. According to Art. 4 the IAEA shall inform States Parties, its Member states and other States which are or may be physically affected. This is a very important duty of the IAEA concerning any state which may be physically affected. The IAEA has the duty to inform also in relation to the relevant international organizations. Such an organization may be the United Nations in the first place.

According to Principle 5 of the Principles, "any State launching a space object with nuclear power sources on board shall timely inform States concerned in the event this space object is malfunctioning with a risk of re-entry of radioactive materials to the Earth". The information on the radiological risk of nuclear power sources shall also be transmitted to the Secretary-General of the United Nations.

This document is concerned with any state which launches a space object or which may be affected by this space object. For the reasons mentioned above every launching state shall inform in these case.

In contradistinction to the Notification Convention there is no mention about the IAEA in Principles.

The Principles refer to the case when the space object is malfunctioning with a risk of re-entry of radioactive materials, it may become a nuclear accident or not. The Notification Convention refers to nuclear accidents only.

From this point of view the Principles have a preventive character.

The cases of assistance according to the Assistance Convention on the one hand and the Principles on the other hand

According to the Assistance Convention /Art. 2/, if a State Party needs assistance in the event of a nuclear accident or radiological emergency, it may call for such assistance from any other State Party, from the Agency /the IAEA/ or from other international organizations.

States which may request assistance under this Convention are States Parties which are expressly mentioned in the Convention. But according to Art. 5 the State Party may request the IAEA to assist a State Party or a Member State of the IAEA to render assistance not only in the event of a nuclear accident but also in the event of a radiological emergency. These provisions of the Assistance Convention may be important in connection with Principles relevant to the use of NPS in outer space. "It seems that malfunctioning of a space object with NPS on board with a risk of re-entry of radioactive materials to the Earth may be considered at least as a radiological emergency if not as a nuclear accident"/2/. Any State Party of the Assistance Convention may request the IAEA to assist the State Party or Member state as soon as the State Party finds out that the space object with NPS on board is malfunctioning according to Principle 5 of the Principles.

As for the Principles themselves, Principle 7, para. 2/b/ lays down that "all States other than

the launching State with relevant technical capabilities and international organizations with such technical capabilities shall, to the extent possible, provide necessary assistance upon request by an affected State". The relevant international organization according to this provision could be the IAEA. In contradistinction with the Assistance Convention, any affected state has the right to request the relevant international organization to assist.

In my opinion, the above mentioned Conventions and Principles supply each other. The Conventions include detailed functions of the IAEA but the Principles reflect the special event of nuclear accident or radiological emergency in connection with space objects.

There is no mention in the Principles concerning the special international organization such as the IAEA. On the other hand the possible scope of states according to the Principles is wider than that according to the Conventions. For these reasons, there is no suspicion that "the existence of Conventions and Principles could lead to legal collisions between respective rules and, consequently to potential tensions in relations between states concerned"/3/.

The IAEA recommendations concerning outer space

The IAEA has also a recommendation function in connection with outer space activities. As for the NPS Principles, the IAEA e.g. submitted to the Scientific and Technical Subcommittee of COPUOS a proposal concerning Principle 3/4/.

A possible role of the IAEA in the field of verification ?

The IAEA has important tasks in verification/safeguards system/, that states use nuclear energy only for peaceful purposes, not for any military purpose. The IAEA's safeguards system includes inspectors who regularly visit nuclear installations to verify records, check instruments and surveillance equipment, etc. At many nuclear installations the IAEA uses surveillance cameras and electronic techniques. On a regular basis, the IAEA receives and analyses reports from State authorities on the whereabouts of nuclear material under their control. The fact that nuclear materials have distinctive radioactive characteristics makes it possible to detect and measure them.

Some of these IAEA activities could be used in connection with NPS in outer space. For example, the 1967 Outer Space Treaty lays down in Art. IV, para. 1 that "States Parties to the Treaty undertake not to place in orbit around the Earth any objects carrying nuclear weapons ..., install such weapons on celestial bodies, or station such weapons in outer space in any other manner".

The IAEA's inspectors could e.g. verify if the space object with NPS does not carry nuclear weapons before launching this space object. The launching state should inform the IAEA in advance that it would launch a space object with NPS and should admit the IAEA's inspection.

Legally the IAEA verification role in connection with space objects with NPS could be based on an international treaty. The IAEA's Statute includes in Art. III, para. 5

the use of the safeguards system on the basis of any bilateral or multi-lateral international treaty or on the request of any state.

Existing safeguards agreements between the IAEA and some states exclude some facilities. For example the Safeguard Agreement between the IAEA and the USA excludes in Art.1 those facilities associated with activities with direct national security significance to the United States.

But the treaty between the IAEA and some state should refer to all launching facilities and space objects with NPS.

This function of the IAEA would be necessary because there is no international body verifying that the space object does not carry nuclear weapons.

The States Parties of the 1975 Registration Convention under Art. IV, para.1 have only a general duty to furnish to the Secretary-General of the United Nations information concerning "general function of the space object". But as already pointed out earlier "information requested on the basis of the Registration Convention is very unprecise. The USA and the USSR launched many significant military objects but not one of the launchings registers has been described as having military character"/5/.

2. Terekhov A.D., The 1986 IAEA Conventions on Nuclear Accidents and the Consideration of the Use of Nuclear Power Sources in Outer Space in the Legal Subcommittee of COPUOS, Proc. 30th Coll. on the Law of Outer Space, Brighton, United Kingdom, 1987, p.406.
3. Supra note 2. p.409.
4. Lodico, Y., Developing Legal Principles for the Safe Use of Nuclear Power Sources in Outer Space Proc. 34th Coll. on the Law of Outer Space, Montreal, Canada, 1991, p.134.
5. Ondřej, J., Some Legal Aspects of Verification In and From Outer Space, Proc. 33th Coll. on the Law of Outer Space, Dresden, Germany, 1990, p.339.

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1. Kopal, V., The Significance of Setting United Nations Principles Governing Space Activities for the Progressive Development of International Space Law, /Summary/ Právník /The Lawyer/ 1, Prague 1990, p.22.