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# Liability Regime of International Space Law: Some Lessons from International Nuclear Law

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*Since 1960, the international community has established a plenty of multilateral agreements on liability regime for ultra-hazardous activities, particularly in the area of international nuclear and space law. The liability regime of nuclear damage has imposed compensation exclusively on operators of nuclear installations whether private or State under strict liability principle of the international conventions. Moreover, new changes of international nuclear conventions following Chernobyl incident reflect a significant change of liability for nuclear accidents. Although there was similar incident, called Cosmos 954 case, with nuclear activity, international space law has not developed and remained ambiguous in certain respects, while imposing absolute liability on State actors. This paper, thus, studies whether States, alone, should be liable for all damage from space activities caused by private operator, similar to the liability scheme of international nuclear law. Moreover, vague term in international space law, for instance, damage and other relevant concepts such as space safety standard and international space organization have been taken into account by comparative approach with the terms of international nuclear law.*

## Keywords

Liability Regime, International Space Law, International Nuclear Law, Strict Liability, Cosmos 954 Case, Chernobyl Incident

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## I. Introduction

Both nuclear and space sectors share similar points. Even though their activities are ultra-hazardous in character, the global community derives enormous benefit from a peaceful use of nuclear and space technology. Each sector has a serious incident caused by the former Soviet Union, namely, the Chernobyl Nuclear Power Plant and the Cosmos 954 accident. Despite such resemblance, they adopted different legal regimes with respect to liability. Due to this diversity, those injured by the Cosmos 954 space activity case were compensated while no compensation was repaid in the Chernobyl nuclear incident. Nevertheless, after the Chernobyl incident, the nuclear sector has developed its legal instruments to be more effective and practical to private and State actors, while the space sector has passed merely resolutions and not binding law. This paper examines and compares these two sectors' regimes regarding liability.

Although there are some similarities in the nature of both nuclear and space sectors, *e.g.*, their ultra-hazardous activities and serious consequences arising from accidents, there is a significant distinction between their liability regimes. The former imposes strict liability on private operators, or so called civil liability, while the latter imposes absolute liability on the State to pay compensatory damages even if there is no State action. Since the Chernobyl incident, international nuclear law has rapidly been improved and developed, respectively, by inter-governmental organizations through international liability conventions. Conversely, the development of international space law has made little progress not only with respect to liability, but also in defining damage, insurance, safety standard, geographical scope, and intergovernmental space organization. Therefore, in the light of the similar potential hazards between the two activities, international space law would benefit by comparing it to international nuclear law.

This paper is divided into seven parts including introduction and conclusion. Part II will analyze the general concepts and principles of liability regimes under international law. Most liability principles under international law have been actually developed by domestic legal systems. This part will thus explore the regime of international liability for injurious consequences arising out of acts not prohibited by international law, which is grouped into fault-based liability and no-fault (strict or absolute) liability. Part III will analyze cases relating to liability, including the Cosmos 954 case and the Chernobyl case. Part IV will discuss the international conventions regarding liability in both international space and nuclear law. Part V will compare the liability systems of the two legal categories. Part VI will make some recommendations for space law such as clarifying the definition of damage and strict State liability. This part will also explore