

# Recent changes in National Legislative and Regulatory Framework for the Physical Protection of Nuclear Material in Use, Storage and Transport and for Nuclear Facilities: Finland

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**Abstract.** Regulatory framework for the physical protection of nuclear material in use, storage and transport and for nuclear facilities in Finland consists of two main areas: combating crime and regulatory control of the use of nuclear energy and radiation. The primary responsibility for the security of a nuclear facility is appointed to the operator. In transport of nuclear and other radioactive material the cooperation is important, because the activity is not limited to restricted security zone. For all security activities, the national legislative and regulatory framework is a key aspect to ensure security against malicious and other illegal acts by insiders or outsiders, or both.

## 1. Introduction: link between nuclear security and national security strategies

Aspects of nuclear security are included in two national security strategies that are frequently maintained: [1-2]. The nuclear security regime in Finland is in line with these two strategies including the concept of cooperation between authorities. The requirements in the design basis threat (DBT) are based on national threat assessment for use of nuclear energy, including transport of nuclear material. This paper demonstrates how national legislative and regulatory framework in the field of nuclear security in Finland has been arranged and maintained.

### 1. The importance of security measures and the threat assessment

Preventive, detection and delay measures are important for nuclear security and for the comprehensive security arrangements. Basis for preventive measures is the national threat assessment developed by the Finnish Security Intelligence Service (SUPO) in cooperation with other relevant security authorities.

According to Nuclear Energy Decree [3], SUPO is responsible for threat assessment and STUK is responsible for developing a DBT. In Finland, the DBTs is developed of progressive levels of threat. Nuclear facilities have been divided into three categories based on the potential consequences.

Preventive measures are not only important against the outsiders, also the insider threat and collusion between insiders and outsiders must be considered. In the Finnish legislation there are several requirements and measures against both insiders and outsiders and both threats are also covered in the DBT. Required measures may differ based on the activity, e.g. operating a nuclear facility may require measures that are typically quite stable, but transport activities may require ad hoc type measures.

### 1. Development and maintenance of regulatory framework

Continuous development of a regulatory framework requires continuous assessment of threats both nationally and globally. STUK observes both national and global trends and revises the regulatory framework based on the changes in the threat environment. The current regulatory guides and DBT for nuclear security were published December 2013, and the STUK regulation on nuclear security in 2016. Changes in the threat environment cause revisions of these requirements.

The national legislative and regulatory framework for nuclear security in Finland is based on the pyramid model from the bottom (regulatory guides) to the top (constitution).

In the revision of the national legislative and regulatory framework, the CPPNM, as Amended, has been taken into account. During the gap-analysis of national legislative and regulatory framework, the needs for changes in the legislation have been identified.

During the 2019 revision of national legislative and regulatory framework, STUK has identified new threats and topics that must be covered in the regulatory framework. Use of drones, trustworthiness for sub contractors, up-to-date powers for security personnel and psychological evaluation of specific employees of the operator are examples of these. The objective is to maintain a comprehensive legislative and regulatory framework for nuclear security based on the current threat environment also in the future.

Legislative measures have been taken to ensure that the response of both operators and authorities against the malicious and other illegal acts is effective. However, organizational changes have an effect on how knowledge of special circumstances and operation in of a nuclear facility can be maintained in the police organization. Therefore, both joint exercises and working groups involving different authorities have been arranged. It is not unusual to have e.g. police special units, The Finnish Border Guard special units and The Defence Forces special units to exercise together with operator's security organization. There must be a clear chain of command and an understanding of the roles of different parties in these circumstances to ensure decision making. Legislative measures are also in place to allow the parties to take necessary action. The significance of these exercises is important to recognize in the future, too.

#### References

[1] Security Strategy for Society, Government resolution, 2.11.2017

[2] National counter-terrorism strategy, 2018, Ministry of the Interior publication 23/2018

[3] Nuclear Energy Decree (161/1988)

## Gender

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Finland

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