Nuclear Regulatory Policy Concept on Safety, Security, Safeguards and Emergency Preparedness (3S+EP)

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Regulatory Policy is formulated in regulations that stipulate the assurance of workers and public safety and environmental protection. Legislation and regulations on nuclear energy should consider nuclear safety, security and safeguards, as well as nuclear emergency preparedness (3S+EP) and liability for nuclear damage. Specific requirements stipulated in international conventions and agreements should also be taken into account.

The effects of regulatory policy on nuclear industry should also be noted. A country that utilises nuclear energy and yet pays little attention to 3S+EP could incite accidents, sabotage, terrorism and non-peaceful use of nuclear energy and will certainly harm nuclear industry globally. Therefore, it is the responsibility of the regulatory bodies around the world to ensure that proper oversight on the implementation of 3S+EP.

Apart from nuclear regulations, a Standard Review and Assessment (SRA) should be provided as a tool for regulatory staffs in performing evaluation on licence applications. SRA is needed to ensure that licence issuance is based on contemporary legal requirements, legal norms and international practice.

By undertaking proper regulatory oversight on Safety, Security and Emergency Preparedness (3S+EP) as an integrated and comprehensive system, safe and secure use of nuclear energy can be assured. Licence requirements and conditions should fulfil regulatory requirements pertaining to 3S+EP for nuclear installation as an integrated system. The boundaries of 3S+EP in the operation of nuclear installations cannot be burdened on the owner, yet they interact with national and international level of coordination, such that appropriate oversight on nuclear energy can be assured.

The importance of emergency preparedness is clearly shown in Chernobyl accident. An effective emergency capacity that can be immediately mobilized is important. The capacity in protecting the personnel before, during and after the disaster should also be planned. Thus, proper emergency preparedness should be supported by adequate resources.

Regulatory policy concept on safety, security, safeguards and emergency preparedness is depicted on Figure I. The interface between safety, security, safeguards and emergency preparedness has to be set forth in nuclear regulations, such as regulatory requirements; 3S+EP; components, systems and structures of nuclear installations and human resources. Licensing regulations should stipulate, among others, DIQ, installations security system, safety analysis report, emergency preparedness requirements and necessary human resources that meet the 3S+EP requirements. If 3S is not stipulated in the licensing requirements, there

will be a lack of regulatory oversight that could result in unintended consequences. However, this can be anticipated with emergency preparedness system. If the integrated 3S+EP concept is thoroughly fulfilled safe and secure use of nuclear energy can be assured.

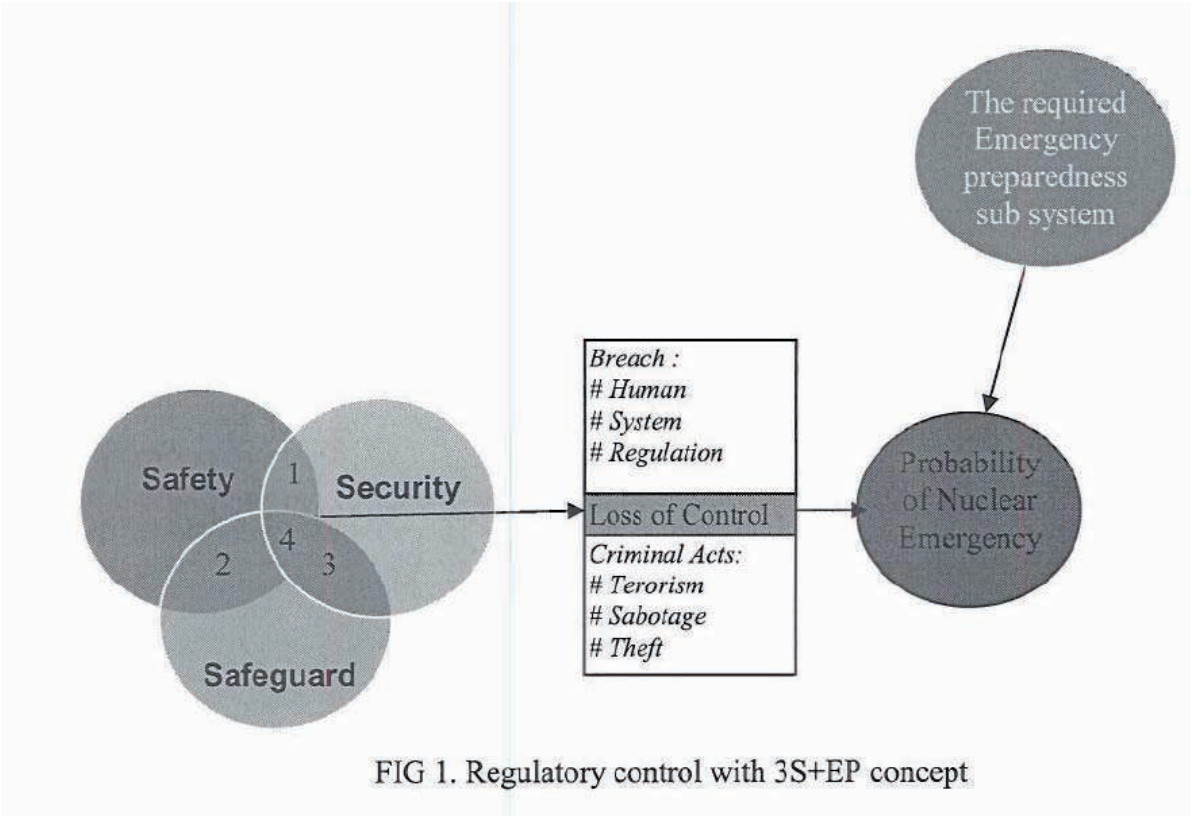

FIG 1. Regulatory control with 3S+EP concept

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