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Position Paper INMM/ESARDA Topic 3, International Safeguards:

Building confidence through transparency, public opinion and integration of existing and emerging technologies

The key factor in obtaining and sustaining stakeholder confidence in nuclear power is openness and transparency. This applies for the operator of planned and existing nuclear facilities, the nuclear regulatory authorities and the respective government ministries.

Effectively communicating about nuclear power and involving different stakeholders at an early stage is one of the most important issues for a country considering or embarking on a nuclear power program. The Finnish nuclear power sector has developed high standards of transparency and openness for its current and future nuclear power plants and its radioactive waste disposal facilities, and has managed to maintain throughout the years a strong local support for nuclear power.

At several occasions, the Finnish Ministry of Employment and the Economy and the Nuclear Regulatory Authority (STUK) have described the processes, including public participation, in the development and licensing of nuclear power projects in Finland. Valuable insights often shared by Nuclear Power Companies, and the Finnish nuclear waste management organization, on the stakeholder involvement tools and techniques they have been using with local communities and decision makers.

For new facilities it is important that safeguards measures for the new facilities will be planned in advance and taking into account the existing safety and security aspects. The objective of this 3S concept is not to integrate safety, security, and safeguards, but rather to build an effective system to manage safety, security, and safeguards in the most effective and efficient way possible. To understand the needs and objectives, the basic understanding of the fundamentals behind each S's is essential.

A great number of the control measures for each S contribute to one or both of the other S's. When security restricts access for unauthorized people to sensitive areas of a nuclear facility and to nuclear material, it also promotes the objectives of safeguards. However, some of the requirements of the three S's are contradictory. Safety calls for unobstructed entrance and exit, but security prefers more complex structures to restrict and delay access. Towards public, openness is the basic way to promote nuclear safety. However, information security concerns may lead to the classification of the safety documents or some detailed information. Without coordination the regulatory control measures for each S may be even counterproductive and impossible to implement without losing integrity of one of the domains. This is called a "3S by Design", where design requirements of all S's are taken into account in a coordinated manner already at the early design and requirement setting phase. In safeguards there is a good motivation to cooperate and communicate with safety and security. This has been demonstrated clearly when developing new facilities in Finland.

The disposal of spent nuclear fuel in an inaccessible geological repository has to be demonstrated and licensed for the very long time span of the safety case, considering also the security and safeguards demands. At the moment of emplacement of the fuel in the final position, there must be credible assurance about the identity, integrity, content and location of the disposal canisters. The very detailed information will be considered to be sensitive, but the general knowledge about the repository has to be maintained transparently public as long as possible, at least hundreds of years, most likely as long as the local land-use is regulated. The methods to generate and maintain this information are to be developed and agreed in international cooperation. In particular, the assurance about the absence of undeclared nuclear activities during the operational time of the repository and afterwards is expected to gain from the emerging monitoring methods that will be applied to demonstrate the safe performance of the facility. Currently, the full safety reviews take place at fixed 10 years intervals at the Finnish facilities. The public evaluation of these findings is essential for the continuous maintenance of confidence.

The public confidence building in the nuclear community has its international dimensions. As an example, the Fukushima accident, reached to the whole world in a few hours. Although the accident had no immediate effects to people on other continents, in today's world, the local authorities were expected to provide the media and worried citizens with accurate information about the situation in their own local language. In order to fulfill these social needs, STUK followed the situation in Japan 24/7 during the most urgent period, opened a media center for press within STUK premises, gave recommendations for Finns living or travelling in Japan, had even air sampling devices in Japan to confirm the findings and observations to the public. This trust in STUK recommendations, e.g. not to take iodine tablets in Japan, was not gained during that accident, it was an outcome and realization of the 25 year's long development of the public communication between STUK and the media. This is a continuous process which is based on openness and presentations including technical reports, easy to understand press releases, willingness to communicate. Media is to be considered like an important long-term partner.