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**“Challenges and requirements for technical support to
nuclear regulatory authority”**

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Abstract.

The Nuclear Regulatory Authorities (NRA) need to rely upon external technical and scientific support to face the very broad range of technical matters related to nuclear and radiation safety on which the regulatory and licensing activities are based.

The availability of technical and scientific support organizations (TSO) providing the technical basis for decisions in regulatory and research activities represents an important part of the nuclear infrastructure today gaining more and more importance.

The technical support to NRA can be provided by organizations or institutions on specific requests from NRA or on a more systematic basis. In the latter case the TSO acronym is read as Technical Safety Organization which underlines the more institutional aspect of the support function to the NRA.

Clear difference exists between the institutional role of the NRA in its regulatory and licensing functions and the technical role of the TSO organizations providing technical and scientific expertise in support to NRA.

In providing technical support to NRA, the experience shows, from one side, the importance to have TSOs with recognized competence, independence, effective quality system and appropriate regulatory view, and from the other side, the importance to have within the NRAs well developed management and technical capability to address, coordinate and use the results of the external technical support: retaining the NRA the full responsibility for the regulatory decision.

In those countries with the perspective to develop a nuclear program with significant incoming tasks for regulation and licensing, against the existing limited resources and experience, there is a substantial need for development of regulatory capabilities from one side and the parallel development of a technical support to the NRA on the other side.

The development of the above mentioned capabilities requires time and is part of the institutional-technical capacity building process and shall be based on clear definition of roles, functions and responsibilities together with assignment of adequate financial and human resources.

As these capabilities need to become effective, in terms of technical and management competence, since the early stage of the overall safety assessment of NPP available technologies and of the site licensing process, the international cooperation and assistance can play an essential role to support the capacity building process in new countries and the needs for technical assistance.

Under which conditions and *modus operandi* the external support shall be provided in order to comply with requirements of being independent, competent and timely provided is an additional and key subject which needs to receive due attention and consideration.