Progress on IAEA Action Plan on Nuclear Safety: Capacity Building

2nd GNSSN Steering Committee (SC) Meeting
3 – 5 April 2013

Shahid Mallick

Safety and Security Coordination Section
Department of Nuclear Safety & Security
International Atomic Energy Agency
Capacity Building (Action 9)

- Member States with NPPs and those embarking to strengthen, develop, maintain and implement
- Member States incorporate lessons learned from Fukushima Daiichi accident into their nuclear power programme infrastructure
Capacity Building: Definition

A systematic and integrated approach to develop and continuously improve governmental, organizational and individual competences and capabilities necessary for achieving safe, secure and sustainable nuclear power programme.
Education & Training

E & T: Important element of building competence and key in the Agency’s efforts

Key factors of E&T

• Educational Infrastructure
• Governmental and organisational level
• Curriculums Development
• Training Needs Assessment
• Time variable (adapt knowledge needs to the market development, aging and policy factors)

Strategic Approach for E&T

E&T Peer Review Service (ETReS)
Systematic Assessment of Regulatory Competence Needs (SARCoN)
Human Resource Development

• Focus on developing guidance and support on HR related activities and processes
• Already doing extensive work with Newcomer countries, especially in area of ‘Workforce Planning’ and Training
• Current activities, Modelling Tool, identification of Training Infrastructure needs and new guidance of staffing of 1st NPP
• E-learning Packages
• Road Map HR
(Nuclear) Knowledge Management

- Developing and implementing methodologies and guidance documents for NKM,
- Facilitating sustainable nuclear education, training and information exchange,
- Providing NKM related products and services (e.g. NKM Assist Visits, ICoP).
- Nuclear Energy Management School for young specialists.
- Regional and National TC Projects
- KM Assist Visits in 2013 (Malaysia, UAE, Philippines and Thailand)
Current Knowledge Networks in IAEA

Regional Networks

• Asian Nuclear Safety Network (ANSN)
• Arab Network for Nuclear Regulators (ANNuR)
• Forum of Nuclear Regulatory Bodies in Africa (FNRBA)
• Ibero-American Nuclear and Radiation Safety Network (FORO)
• Asian Network for Education in Nuclear Technology (ANENT)
• Latin-American Network for Education in Nuclear Technology (LANENT)
• AFRA Network for Education in Nuclear Science and Technology (AFRA-NEST)
• RegNet (Regulators Network)
**Approach for the Self-Assessment of National Capacity Building**

1.- What is needed?
2.- What is available and adequate to meet the needs?
3.- What is not available or needs improvement in order to meet the needs?
4.- How can the deficiencies be remedied?

**LEVELS**

**NATIONAL**
- Government, Ministry

**ORGANISATIONAL**
- Operator, Regulator, TSO

**INDIVIDUAL**

**Area I**  Human Resources Development
**Area II**  Knowledge Management
**Area III**  Knowledge Networks
**Area IV**  Education and Training

………
Experiences of Finland

- Parliament ratified DIP on July 2010 (OK. 4 and Fenn. 1) Ministry of Employment and Economy decided that there shall be a self-evaluation on capacity building (Government driven)
- Wide range of experts (150 persons) gathered to evaluate present status and future needs in nuclear personnel and infrastructure.
- Vast survey to almost 300 Finnish organizations, divided in 4 groups
- No of Personnel (Present/Future) 2010, 2015, 2020 and 2025
- 21 different areas - 3 education level
- Cost 200 K Euro + in kind
- Benefit: The most important result was the process itself
Experiences of Spain

• CIEDEN is a coordination framework of R&D needs and efforts in the field of nuclear technology in Spain
• CEIDEN gathers together representatives from the government, the regulator, operators, educational institutions and the industry
• Objective of the CB assessment: to study capabilities of Spanish Nuclear Industry for a New Nuclear Project and making catalogue of nuclear energy and technology training capacities.
• All the national capabilities were analysed including capacity of the industry, supplies and educational capacities
• A report including the questionnaires and analysis of results is available at:
MS Planning/Considering

• Jordan
• Bangladesh
• Indonesia
• UAE
Conclusion/Suggestion

• Integrated approach to capacity building and Methodology of self-evaluation is useful
• Finnish and Spanish studies have shown the importance of national self-evaluation for MS
• Encourage self-evaluation of capacity building by Member States (both expanding and Embarking)
• GNSSN may take a lead and establish a working group to support self-evaluation of capacity building in Member States
...Thank you for your attention