

**13<sup>th</sup> GNSSN Steering Committee Meeting**  
**8-9 November 2018, Vienna**

**Feedback on the Model Workshop on Capacity Building  
and Nuclear Safety Knowledge Management**

Marc-Gérard Albert

8 November 2018

# Background

- Action Plan from GC 2011
- 2015 Report on Capacity Building
- March 2018 CS, reported to the 12<sup>th</sup> SC meeting
- Draft Document on Methodology for Capacity Building in Nuclear Safety
- Model Workshop on Capacity Building and Nuclear Safety Knowledge Management
- Draft Safety Report on Managing Nuclear Safety Knowledge: being readied for review

# ANNuR Workshop

The first Expert Meeting on Capacity Building and Nuclear Safety Knowledge Management was organized in Tunis on 25-29 June, as a regional workshop organized in the framework of ANNuR :

- 12 Participants from 6 ANNuR Member States, AAEA, IAEA
- The programme included presentations on the various elements of CB and NSKM, work on a case study, and the development of findings and recommendations
- Among the outcomes: general principles and requirements for Capacity Building

# **General principles and requirements for Capacity Building developed during the ANNuR Workshop**

- among the work presented to the workshop was an analysis of the requirements and guidance in the safety standards that are relevant to Capacity Building
- based on these requirements and guidance, the workshop identified “general principles and requirements” for Capacity Building

## **Resulting improvements to the Draft Document on Methodology for Capacity Building**

- The general principles and requirements for Capacity Building identified during the ANNuR meeting were introduced in the draft document on Methodology for Capacity Building
- As part of a section on Responsibilities and Requirements for Capacity Building
- As a result, the draft document benefits from a sounder basis coming from the Safety Standards
- It remains however still to be improved and reviewed

**Thank you for your attention**

**Reserve slides**



**IAEA**  
International Atomic Energy Agency

# IV- International requirement & standards

## Capacity building



Requirement	Ref.
National policy and strategy for safety is established and includes human resource development, education and training, knowledge management and knowledge networks as main elements of capacity building.	GSR Part-1, Rev-1, Req # 1. GSR Part-1, Rev-1, Req # 11.
Legal framework covers the main elements of capacity building for acquiring and maintaining the necessary competence for ensuring safety.	GSR Part-1, Rev-1, Req # 2, (para. 2.5)
The government has established the necessary mechanism and arrangements to fulfil its international obligations to support cooperation with other states and international organizations in order to enhance its capacity building.	GSR Part-1, Rev-1, Req # 14 (para. 3.2A)
As part of its regulatory functions and responsibilities, regulatory body is implementing the governmental policy and strategy for safety including the four elements of capacity building i.e. human resource development, education and training, knowledge management and knowledge networks.	GSR Part-1, Rev-1, Req # 1 (para. 2.3-2.4) GSR Part-1, Rev-1, Req # 11 (para. 2.34-2.38) GSR Part-2, Req # 2 (para. 3.2a, 3.3, 4.2) GSR Part-1, Rev 1 Req # 16 para 4.5 GSR Part-1, Rev-1, Req # 20
The regulatory body has established a knowledge management program as part of its capacity building in order to maintain necessary competence and skills.	GSR Part-1, Rev-1, Req # 18 (para. 4.13) GSR Part-1, Rev-1, Req # 19 GSR Part-2, Req # 9 (para. 4.27) GSR Part-2, Req # 3





**IAEA**  
International Atomic Energy Agency

# IV- International requirement & standards

## Knowledge Management



Requirement	Ref.
National policy and strategy for safety is established and includes human resource development, education and training, knowledge management and knowledge networks as main elements of capacity building.	GSR Part-1, Rev-1, Req # 1. GSR Part-1, Rev-1, Req # 11.
As part of its regulatory functions and responsibilities, regulatory body is implementing the governmental policy and strategy for safety including the four elements of capacity building i.e. human resource development, education and training, knowledge management and knowledge networks.	GSR Part-1, Rev-1, Req # 1 (para. 2.3-2.4) GSR Part-1, Rev-1, Req # 11 (para. 2.34-2.38) GSR Part-2, Req # 2 (para. 3.2a, 3.3, 4.2) GSR Part-1, Rev 1 Req # 16 para 4.5 GSR Part-1, Rev-1, Req # 20
The regulatory body has established a knowledge management program as part of its capacity building in order to maintain necessary competence and skills.	GSR Part-1, Rev-1, Req # 18 (para. 4.13) GSR Part-1, Rev-1, Req # 19 GSR Part-2, Req # 9 (para. 4.27) GSR Part-2, Req # 3
As part of their legal obligations, the authorized parties are implementing the governmental policy and strategy for safety including the four elements of capacity building i.e. human resource development, education and training, knowledge management and knowledge networks.	GSR Part-1, Rev-1, Req # 1 (para. 2.3d) GSR Part-1, Rev-1, Req # 2 (para. 2.5.15) GSR Part-1, Rev-1, Req # 11 (para. 2.34) GSR Part-2, Req # 2 (para. 3.2a, 3.3) GSR Part-2, Req # 3 (para. 4.2) GSR Part-1, Rev-1, Req # 16 (para. 4.5) GSR Part-1, Rev-1, Req # 20
The authorized parties have established a knowledge management programme as part of its capacity building in order to maintain necessary competence and skills	GSR Part-2, Req # 9 (para. 4.7) GSR Part-2, Req # 13 (para. 6.1- 6.2)
The education and training institutions have a knowledge management programme to support its education and training programme.	GSR Part-2, Req # 6 (para. 4.8-4.9)



**IAEA**  
International Atomic Energy Agency

# IV- International requirement & standards

## Capacity building



Requirement	Ref.
As part of capacity building, the regulatory body has established the necessary mechanism and arrangements for sharing and benefiting knowledge and feedback of experience at national and international level.	GSR Part-2, Req # 5 (para. 4.7) GSR Part-1, Rev-1, Req # 14 (para. 3.2A) GSR Part-1, Rev-1, Req # 15 (para. 3.5)
As part of their legal obligations, the authorized parties are implementing the governmental policy and strategy for safety including the four elements of capacity building i.e. human resource development, education and training, knowledge management and knowledge networks.	GSR Part-1, Rev-1, Req # 1 (para. 2.3d) GSR Part-1, Rev-1, Req # 2 (para. 2.5.15) GSR Part-1, Rev-1, Req # 11 (para. 2.34) GSR Part-2, Req # 2 (para. 3.2a, 3.3) GSR Part-2, Req # 3 (para. 4.2) GSR Part-1, Rev-1, Req # 16 (para. 4.5) GSR Part-1, Rev-1, Req # 20
The authorized parties have established a knowledge management programme as part of its capacity building in order to maintain necessary competence and skills	GSR Part-2, Req # 9 (para. 4.7) GSR Part-2, Req # 13 (para. 6.1- 6.2)
As part of their capacity building, The authorized parties have established the necessary mechanism and arrangement for disseminating and benefiting from safety relevant information exchanged with interested parties	GSR Part-2, Req # 5 (para. 4.7(c)) GSR Part-2, Req # 12 (para. 5.2 (c)) GSR Part-1, Rev-1, Req # 15 (para. 3.5)
The education and training institutions have a policy and strategy in place, addressing the capacity building elements as an essential part of the national policy and strategy for safety.	GSR Part-1, Rev-1, Req # 11 (para. 2.34)
As part of the national capacity building program for safety, the education and training institutions, have the necessary competence and skills to support the human resource development as needed by regulatory body and authorized parties	GSR Part-1, Rev-1, Req # 11 (para. 2.35)
As part of capacity building, the education and training institutions have established mechanisms and arrangements for benefiting from knowledge and experience at the national and international level in order to improve continuously its education and training programme.	GSR Part-2, Req # 5 (para. 4.7 (c)) GSR Part-2, Req # 12 (para. 5.2 (c)) GSR Part-1, Rev-1, Req # 15 (para. 3.5)

# The draft General Principles and Requirements for Capacity Building in Nuclear Safety (1)

1. *Under its National policy and strategy for safety, the Government shall ensure that human resource development, education and training, knowledge management and knowledge networks are included as the main elements of capacity building for ensuring safety.*
2. *The national legal framework sets out the main elements of capacity building.*
3. *As part of their respective functions, responsibilities and legal obligations, the regulatory body and the authorized parties implement the governmental policy and strategy for safety including the four elements of capacity building i.e. human resource development, education and training, knowledge management and knowledge networks.*
4. *The regulatory body and authorized parties have established a knowledge management program as part of their capacity building.*
5. *The government will establish the necessary mechanisms and arrangements to fulfil its international obligations regarding cooperation with other states and international organizations in order to enhance safety including national capacity building.*
6. *As part of national capacity building, the regulatory body (+authorized parties?) shall establish the necessary mechanism and arrangements for sharing and benefiting knowledge and feedback of experience at national (and international ?) level.*
7. *As part of their capacity building, The authorized parties will established the necessary mechanisms and arrangements for disseminating and benefiting from safety relevant information exchanged with interested parties through knowledge networks.*

# The draft General Principles and Requirements for Capacity Building in Nuclear Safety (2)

8. *As part of the national capacity building program for safety, the education and training institutions, have the necessary competence and skills to support the human resource development as needed by regulatory body and authorized parties*
9. *The education and training institutions have a policy and strategy in place, addressing the capacity building elements as an essential part of the national policy and strategy for safety.*
10. *The education and training institutions have a knowledge management programme to support their education and training programme.*
11. *As part of national capacity building program for safety, the education and training institutions have established mechanisms and arrangements for benefiting from knowledge and experience at the national and international level in order to improve continuously its education and training programme.*
12. *As part of the national safety strategy, the regulatory body and authorized parties will establish their respective integrated management systems covering all the necessary processes and procedures relevant to capacity building.*
13. *The government ensures that regulatory body and authorized parties have staffing and recruitment plans necessary for fulfilling their functions and responsibilities.*
14. *The government ensures that necessary competence and expertise as well as resources are in place for regulatory control and operation of facilities and activities.*
15. *The national policy and the associated national strategy are public documents.*

# **Current Structure of the Draft Document on Methodology for Capacity Building in Nuclear Safety**

- Background
- Introduction to Capacity Building
- The Four Components of Capacity Building
- Responsibilities and Requirements for Capacity Building
- Analysis Mechanism of National Capacity Building Activities



IAEA

International Atomic Energy Agency

# Recommendations



1. The government should consider the CB concept and the development of its elements early in the decision process concerning a NPP and other applications,
2. The RB should lead the development and implementation of a national policy and strategy for developing capacity building and knowledge management in nuclear safety
3. The operators and the concerned parties should cooperate with the RB in establishing and performing the national policy and strategy
4. In its action plan to implement a national strategy, the RB should establish:
  - a communication plan with the operators, Universities, training centers and the public,
  - Evaluation system to perform the strategy.



IAEA

International Atomic Energy Agency

# Recommendations



4. ANNuR should ensure addressing the current needs of CB & NK in Arab countries and make it available to them,
5. The IAEA should help the Member-States to develop their national policy and strategy for developing capacity building and knowledge management in nuclear safety
6. The IAEA should establish guidance addressed to MS and to their RB to:
  - Assessing the current situation of KM and CB and identifying gaps ,
  - Elaborate P&S,
  - Implement strategy and ensuring the review of its performance.