Status of the Safety Report on Knowledge Management for Safety Regulators

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Introduction

- To perform its functions any regulatory body depends on the availability of nuclear safety knowledge

- Lesson learnt from Fukushima
  - knowledge management should be part of any future nuclear safety approach

- The importance of
  - human resources
  - capacity building
  - knowledge and competence management in the context of RBs

highlighted in IAEA SSs
- GSR Part 1, GSR Part 2 and GSR Part 7
- all other GSR Parts are of general relevance as well
Introduction

- Member States emphasized the importance of NSKM
  - International Conference on HRD for Nuclear Power Programmes: Building and Sustaining Capacity (2014)

- Steering Committee on RCB and KM
  - requested the IAEA to develop a guidance publication on knowledge management for RBs and TSOs
Specificities of KM for RBs

• Legally obliged to maintain its own knowledge base
• Knowledge is important to secure RB independence
• Broad scope of areas to be considered
  – legal, regulatory and organizational basis
  – technical disciplines
  – regulatory practices and
  – personal and behavioral competences
• Long timescales
  – full life cycle of all facilities and activities (and even longer)
Specificities of KM for RBs

• Managing its knowledge RB interfaces with others
  – licensees, TSOs, national and international context

• As non-commercial entity, RB should make deliberate efforts to manage its own knowledge resource

• Dual role of RBs
  – as individual organization, the RB uses knowledge management to support its own regulatory functions
  – as regulator over facilities and activities, the RB oversees knowledge management activities of others
Key information

• Safety Report with the title
  – Knowledge Management for Safety Regulators

• Objective and scope
  – to give practical advice on introducing and running KM programmes in RBs and related TSOs, considering
    • Statutory functions of RBs in nuclear and non-nuclear countries
    • Regulatory processes for facilities and activities, and
    • Functions of RBs in EPR within the national emergency management systems
  – the report complements the existing SRS No. 79
    • Managing Regulatory Body Competence
Approach of guidance

- Step-by-step approach
  - determine "Regulatory Functions"
  - determine "Regulatory Knowledge Domains"
    - assess these knowledge domains for their criticality
      - ask if knowledge at risk?
    - yields: "Critical Knowledge Domains"
  - map the "Critical Knowledge Domains" against the "Regulatory Functions"
    - yields: areas to act on
  - choose corrective knowledge management actions
History and current status

• 20-24 June 2016, Vienna, Austria
  – RAS, NSRW, IEC, NSOC and NE involvement
  – significant change in the structure and content
    • wider scope for covering nuclear and radiation safety, EPR
    • the document was restructured and new chapters added
    • Version 4.0
History and current status

• 3rd International Conference on NKM
  – 7-11 November 2016, Vienna, Austria
  – the SR was presented during a specific session on NKM
  – interest was raised, the draft was requested for review/comments

• 8th Meeting of the Steering Committee on RCB & KM
  – 12-16 December 2016, Vienna, Austria
  – the SR was presented during a specific session on NKM
  – the SR was sent to the participants for review/comments
History and current status

• Providers of Case Studies were contacted with
  – the objective to unify the structure of case studies
  – Case Studies were resubmitted by June 2017

• 27-31 March 2017, Vienna, Austria
  – RAS, NSRW, IEC, NSOC and NE involvement
  – to finalize the SR after the 3rd ICNKM and 8th SC meeting
    • Version 5.0
History and current status

• 16-20 April 2018, Vienna, Austria
  – „final treatment”
    • comparison with the draft Safety Report on Managing Nuclear Safety Knowledge
    • clearly identify the scopes
    • filter out duplications and overlaps
Conclusions

• Knowledge management is important for safe, secure and efficient nuclear activities
• RBs and their TSOs should have a clear and well-defined KM Strategy and KM Plan in place
• KM Strategy and KM Plan is to be developed in consistency with the statutory functions of the RB
• Current status
  – „final treatment“
Thank you!