Agenda item 6.5
INFORMATION ON THE REVISION OF SARIS QUESTION – SETS

JUBIN
Regulatory Activities Section
Division of Nuclear Installation Safety
SARIS (Methodology & Tool): Review of Regulatory Infrastructure for Safety against the IAEA safety standards

2. Answering phase aims at collecting information through QUESTION-SETS
   - Primary Question (P-Q): Boolean question + justification in a text field
   - Subsidiary questions (S-Q) selected according to Yes/No P-Q answer
Goal: To improve nuclear and radiation safety

- Sharing experience and good practices
- Opportunity for continuous improvement for regulatory bodies
- Review of technical and policy issues
- Evaluation of regulatory infrastructure with respect to IAEA safety standards

Backbone: GSR Part 1 Governmental, Legal and Regulatory Framework for Safety

IRRS process comprises

- Self-assessment | SARIS
- Main mission
- Follow-up mission
Former SARIS Question-Sets

- **Structured according to the IAEA safety standards**
  - GSR Part 1
    - Government responsibilities
    - Global safety regime
    - Responsibilities AND functions of the Regulatory Body
  - GS-R-3: Management System of Regulatory Body
  - GSR Part 3: Safety of radiation sources, ORP, Medical and Public exposure control…
  - TS-R-1: Transport
  - SSR-2/1: NPP Design
  - SSR-2/2: NPP Commissioning and Operation
  - NS-R-4: Research Reactors
  - NS-R-5: Fuel Cycle Facilities
  - etc.

June 2016
Former SARIS Question-Sets

• Ensured full consistency and consideration of the IAEA safety requirements
  • One primary question per each overarching requirement
  • Intention to cover the entire content through the subsidiary questions
  • But, led to
    • Many questions, at primary and secondary levels
    • Redundancy between questionnaires
    • Resource intensive for answering and analysis

• Need to re-organize and review them to enhance their design and to facilitate the conduct of self-assessment
New Q-Sets based on a Pragmatic Approach

- Based on Member States and IAEA staff feedback, a new approach to design Q-Sets was developed in 2014
  - New Q-set structure, based on the IRRS modular approach
  - Covering all aspects of the relevant IAEA Safety Requirements
  - Consistency with newly developed or revised IAEA safety standards
  - Drastic reduction of questions
    - Overarching requirements grouped when possible under a primary-question
    - Expectations provided for each primary question
    - Subsidiary questions do not cover details of requirements
    - Tracking and deleting duplications and overlaps
  - Fostering of a questioning attitude
    - Expectations are systematically provided to ensure the respondents look at the key aspects of the primary question – Justification required at primary level

All question-sets have been revised progressively since 2015
## Results of SARIS Q-sets Revision

**Total number of questions**

<table>
<thead>
<tr>
<th></th>
<th>Primary questions</th>
<th>Subsidiary questions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Revised</td>
<td>Before</td>
</tr>
<tr>
<td>1. Responsibilities, Functions of Government</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>2. The Global Safety Regime</td>
<td>3</td>
<td>2</td>
</tr>
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<td>3. Responsibilities of Reg. Body</td>
<td>8</td>
<td>12</td>
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<tr>
<td>5. Authorization generic</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>9. Regulations and Guides generic</td>
<td>5</td>
<td>21</td>
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<tr>
<td><strong>Specific question-sets for activities and facilities</strong></td>
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<td></td>
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<tr>
<td>Regulation of Nuclear Power Plant</td>
<td>40</td>
<td>124</td>
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<tr>
<td>Regulation of Research Reactor</td>
<td>26</td>
<td>19</td>
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<tr>
<td>Regulation of Fuel cycle facilities</td>
<td>31</td>
<td>29</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>248</td>
<td>671</td>
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<tr>
<td><strong>Overall Reduction (Primary &amp; Subsidiary)</strong></td>
<td>677</td>
<td>2872</td>
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Use of New Question-Sets

- Self-assessment is a prerequisite for:
  - Any IRRS mission: **Self-assessment Report** is part of the **Advance Reference Materials (ARM)** to be provided to the Expert Team 2 months prior to the mission
  - For follow-up mission: if necessary for new areas / modules, not covered by the main mission (Extended follow-up)

Any Self-Assessment to be undertaken from now on is to use the updated Question-Sets, therefore for mission scheduled in 2017
Conclusions

• Number of questions reduced drastically by more than 75%
  • But still fully complied with the IAEA safety standards
  • Cover all relevant aspects of the IAEA Safety Requirements
  • Reduction of time allocated to the ‘Answering phase’, then facilitation of the self-assessment implementation
  • Enhancement of self-assessment quality, therefore the whole IRRS process

• SARIS Question-sets fully reflect IRRS modular approach
  • Facilitation of the use of self-assessment outcomes for IRRS mission by the host countries and the experts
Conclusions

- New Q-sets are being uploaded into SARIS software and an updated version will be released in June.
- The last new Q-set on Management system is to be developed based on GSR Part 2.

Self-Assessment to be undertaken from now on should use the updated Question-Sets.
Thank you

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