Virtual EPReSC meeting

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Progress Report

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Current status

• Several home based assignments in 2019 and early 2020 to prepare input
• A first (almost) complete draft was circulated in March 2020
• Current working title:
  Implications of the 2012 UNSCEAR report for the IAEA safety standards:
  Considerations on attribution of radiation health effects and inference of radiation risk
• Many comments received in April and May; currently being resolved
  – Some questions on scope (nuclear safety? the environment?)
  – Section 5 (on implications for communication) still lacking some input/structure
  – Input for Appendix on plain language explanation expected end of August 2020
  – Still awaiting input for annexes with examples
Next steps

- Second draft to be circulated in September 2020
- Consultancy Meeting originally intended for September 2020 will be postponed and work on reviewing and refining the text will mainly take place by electronic means
- A mature draft expected by the end of 2020, for publication in 2021
1. INTRODUCTION
   1.1 BACKGROUND
   1.2 OBJECTIVE
   1.3 SCOPE
   1.4 STRUCTURE

2. RISK-RELATED CONCEPTS
   2.1 RETROSPECTIVE ATTRIBUTION OF RADIATION HEALTH EFFECTS TO PAST RADIATION EXPOSURES
      2.1.1 Deterministic effects
      2.1.2 Stochastic effects
   2.2 PROSPECTIVE INFERENCE OF HEALTH RISKS FROM RADIATION EXPOSURES
      2.2.1 Frequentist risk and subjective risk
      2.2.2 Radiation risks in estimating health effects
      2.2.3 Inference of radiation risks for purposes of radiation protection
      2.2.4 The dose-response relationship
   2.3 PREDICTION OF NOTIONAL HEALTH EFFECTS FOR COMPARATIVE PURPOSES
3. BASIS OF THE SAFETY STANDARDS
   3.1 PURPOSE AND USE OF THE SAFETY STANDARDS
   3.2 SCOPE OF THE SAFETY STANDARDS
   3.3 LOW DOSES AND THE LINEAR NO THRESHOLD MODEL
   3.4 THE PRINCIPLES OF RADIATION PROTECTION
      3.4.1 The concepts of attribution and inference and the principle of justification
      3.4.2 The concepts of attribution and inference and the principle of optimization of protection
      3.4.3 The concepts of attribution and inference and the principle of individual dose restrictions
   3.5 PROVISION OF INFORMATION ABOUT RISK IN THE SAFETY STANDARDS
      3.5.1 Use of the term risk in radiation protection
      3.5.2 Use of the term risk in nuclear safety
      3.5.3 Use of the term risk in emergency preparedness and response
      3.5.4 Use of the term risk in protection of the environment
4. PRACTICAL APPLICATION OF RISK-RELATED CONCEPTS FOR DIFFERENT CIRCUMSTANCES

4.1 RADIATION PROTECTION
   4.1.1 Exposure of the public
   4.1.2 Exposure of workers
   4.1.3 Medical exposure

4.2 NUCLEAR SAFETY

4.3 EMERGENCY PREPAREDNESS AND RESPONSE
   4.3.1 Doses and health effects associated with nuclear and radiological emergencies
   4.3.2 Criteria for preparedness and response for a nuclear or radiological emergency

4.4 PROTECTION OF THE ENVIRONMENT

5. THE IMPLICATIONS OF THE CONCEPTS OF ATTRIBUTION OF HEALTH EFFECTS AND INERENCE OF RISK FOR COMMUNICATION

APPENDIX: A PLAIN LANGUAGE EXPLANATION OF THE CONCEPTS OF ATTRIBUTION AND INERENCE TO SUPPORT PUBLIC COMMUNICATION AND IN PARTICULAR MEDIA OUTREACH

ANNEX: CASE STUDIES
Thank you!