Challenges in Regulating NORM Industries

Wednesday, 22 June 2016

IAEA Headquarters, Vienna

The International Basic Safety Standards (GSR Part 3) establish requirements for NORM industries under planned and existing exposure situations. This brings new challenges to regulatory bodies, and operators, as these activities cover broad industrial sectors of much diversified characteristics, and many of which have not been regulated in the past in term of radiation safety.

For the application of the IAEA Safety requirements on NORM activities, consideration needs to be given to radiation protection of workers, the public and the environment for a wide range of NORM-industries on a global basis. The IAEA has initiated many activities, including the development of safety guides and safety reports, for assisting Member States in implementing relevant IAEA Safety Requirements.

In managing the residues and waste in NORM industries, radiation protection of the public and environment need to be addressed. This includes discharge control, reuse and recycle of residues, and the application of the concepts of exemption and clearance. Long-term safety of NORM residues is a particular challenge, such as appropriate control of disposal of residues in conventional landfill, decommissioning and remediation of relevant facilities and sites. Various options should be considered, understood, applied and assessed as to whether radionuclides and other potentially hazardous materials are appropriately isolated from the human environment.

While radiological aspects of NORM industries can be characterised in a general way, radiation protection management should be site and practice specific. As such, radiation protection addressing public health concerns associated with releases of radionuclides to the environment, the use of excavated ores for preparing building materials, and the safe long-term management of NORM-residues and waste requires tailored and graded approaches and understanding on consequence management. This requires consultation and engagement with a number of stakeholders.

The objective of this topical session will be to present the key safety issues in terms of policy, regulatory and operational aspects of NORM industries, to identify and prioritize areas where safety and optimisation of protection is challenging, and to suggest areas where the Secretariat could work further to enhance the internationally harmonized system.

In the morning session, issues of relevance to all NORM industries will be discussed. The afternoon session will focus specifically on the coal industry for which a Safety Report is currently being developed.
Agenda

09:00 Opening of the Joint Topical Session

Chairmen’s Introduction  G.MASSERA (RASSC) / G. WILLIAMS (WASSC)

Session 1: General Issues & Perspectives
Chair: Geoff Williams
Rapporteur: Zhiwen Fan

This Session will “set the scene” for the Topical Session, presenting an overview of the IAEA work, international perspectives and remaining challenges.

09:10 IAEA Work Programme on NORM – Achievements and Challenges

This presentation will give an overview of the IAEA activities in developing Safety Standards dealing with NORM industries and assisting Member States with their implementation. Future work and remaining challenges will also be addressed.

Presenter: John ROWAT (IAEA)

09:40 Radiation Exposure due to NORM Industries

This presentation session will give an overview on exposures arising from different NORM industries.

Presenter: Malcolm CRICK (UNSCEAR)

10:00 Application of the ICRP Recommendations to NORM Industries

This presentation will discuss the activities of Task Group 76 to develop a conceptual framework for the practical application of the new ICRP recommendations on radiation protection for NORM industries.

Presenter: Jean-François LECOMTE (ICRP TG 76)

10:30 Coffee Break

11:00 Challenges in Regulating NORM industries – the View from the United States

This session will discuss challenges and experiences in regulating NORM industries in the United States, including stakeholder issues.

Presenter: Jared THOMPSON (Arkansas Department of Health and Chair of the Conference of Radiation Control Program Directors)

11:45 Challenges Faced by NORM industries – an Industry Perspective

This presentation will discuss challenges facing NORM industries from the viewpoint of the operator.

Presenter: Frank HARRIS (Rio Tinto)
12:30 Panel Discussion

*Session 1* will be completed by an open discussion of the importance of the issues identified in the presentations, and will be moderated by the Chair.

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**Session 2:**

*Special Focus on Coal Industry – Mining, Combustion & Residues*

**Chair:** Gustavo Massera  
**Rapporteur:** Burcin Okyar

This Session will focus specifically on the coal industry and will contribute to the Safety Report currently being developed on this topic.

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14:00 **Challenges in Regulating the Coal Industry – Experience in China**

*This presentation will emphasize on specific, detailed examples of experience from operating coal mines, from the viewpoint of regulator.*  
**Presenter:** Senlin LIU (China Institute of Atomic Energy)

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14:40 **Radiation Exposure from the Coal Industry – Experience in the Russian Federation**

*This paper will describe the current situation regarding the assessment and management of the exposures of workers and the public from all aspects of the coal industry in the Russian Federation.*  
**Presenter:** Ivan STAMAT (Rospotrebnadzor)

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15:20 **The Coal Industry in Europe and Coal Combustion Products in the Construction Industry**

*This presentation will focus on specific, detailed examples of experience from the European practice with a special focus on the issue of residues and recycling, e.g. fly ash in building materials.*  
**Presenter:** Boguslaw MICHALIK (Silesian Centre for Environmental Radioactivity Central Mining Institute)

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16:00 **Coffee Break**

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16:30 **Rapporteur summary – Session 1 & 2**

*The Topical Session Rapporteur will present views of the key points raised by the presentations and through discussion.*

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16:50 Panel Discussion

*Session 2* will be completed by an open discussion of the importance of the issues identified in the presentations, and will be moderated by the Chair.
17:30  Closing of the Topical Session

*Session Chairs will give brief closing remarks with respect to possible future IAEA work that could be undertaken.*

17:45  Reception

*All participants are invited to a reception in the Mozart Room, adjacent to the IAEA restaurant in F building (ground floor).*