

The Ninth International Symposium on NORM (NORM IX)

OPENING ADDRESS

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Session starts at 8:00 am

Miroslav takes the floor at 8:15 am

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IAEA's Perspective on NORM – a Cross Cutting Activity “Improving Radiation Protection in Practice

Distinguished delegates, ladies and gentlemen,

It is my great pleasure indeed to represent the International Atomic Energy Agency at this opening ceremony of the Ninth International Symposium on Naturally Occurring Radioactive Material here in Denver.

As you all might know, the NORM symposia series originated in Europe in 1997 as a result of a European Commission Directive to control exposures to NORM, and the first symposium was held in Amsterdam, the Netherlands. Subsequently, the symposium moved to Germany,

Belgium, Poland, Spain and then progressively out of Europe to Marrakesh, Morocco, Beijing and finally in Rio de Janeiro in 2016 which was a significant milestone in the NORM symposia history; addressing challenges through worldwide exchange of experiences.

The IAEA has been associated with the symposia from NORM III onwards, and from NORM IV it has played a leading technical role and published the proceedings. Now we are adopting a global approach towards understanding and utilizing the best practices and regulations based on the International Basic Safety Standards. This document, among others establishes requirements for operations involving NORM under planned and existing exposure situations. This may represent a challenge to regulatory bodies, and operators, as these activities cover broad industrial sectors of much diversified characteristics, many of which have not been, in some Member states, regulated in terms of radiation safety. It should be noted that in the past, most countries were not particularly concerned with assessing occupational exposure to natural sources of radiation. However, recently, we observe serious progress in establishing reliable and sustainable radiation protection regimes in many Member States for the protection of workers, and also of the public and the environment for a wide range of industrial operations on a global basis.

Particularly, 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 may be a particular challenge as for example appropriate control of disposal of residues in conventional landfill and decommissioning and remediation of relevant facilities and sites. Various options should be considered, understood, applied and assessed as to whether risk from exposure to radionuclides in NORM is appropriately addressed.

While radiological aspects of NORM industries can be characterised in a general way, radiation protection management should be site and industrial practice specific. For example 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, they all require tailored and graded approaches and understanding on consequence management... They require consultation and engagement with a number of stakeholders as it was also well observed during the last NORM Symposium in Brazil, and I do believe that this symposium

will be another corner stone event to echo the top-level solutions and mutual understanding on various aspects, like for example;

- Addressing generic approach of RP controls;
- Evaluating practical application and implication of standards;
- Discussing results of research development and look into practical case studies of industrial applications;
- Addressing waste transport and disposal practices, as well as solutions for disposition of residues;
- Identifying societal needs, stakeholders' suggestions, and technical requirements for regulators and industry; and finally;
- Addressing environmental monitoring aspects including sampling and measurements.

With this opportunity, I would like to inform you that the IAEA will organize an International Conference on Radiation Safety in Vienna from 9 to 13 November 2020. The motto of the congress is "improving radiation protection in practice" and we have been currently organising regional workshops on Lessons Learned in applying the IAEA General Safety Requirements to identifying the overarching issues. I can share many of the findings, but relevant to this NORM symposium, major issues are:

- Decision-making on justification, Applying the graded approach,
- Establishing and applying reference levels,
- Regulatory body cooperation with other national agencies,
- Stakeholder involvement,
- Explaining actions and radiation protection terminology,
- New dose-conversion factors for radon,
- Managing radon exposure in workplaces which is quite a new issue, and finally
- conservatism in radiation protection.

As such, we expect input and even feedback from this Symposium for the 2020 international conference and you are all kindly invited to attend it. Mr Okyar will provide you more information in this regard during the symposium.

On behalf of the International Atomic Energy Agency, I would like to express deep appreciation and thanks to the Conference of Radiation Control Program Directors, Environmental Protection Agency and US Nuclear Regulatory Commission.

With this, our special thanks go to CRPPH Mrs McBurney, and EPA Messrs. Egidi and Abu Eid for their dedication into preparing this event and I do believe also making it a success. As you know, this symposium is an outcome of a Practical Arrangements with CRCPD on cooperation in the area of radiation safety and monitoring and is held in cooperation with EPA. I highly acknowledge their extremely dedicated involvement.

In addition, I would also like to thank to all international organizations which have announced their support and co-sponsor this symposium.

Denver is a beautiful city associated with several wonders and Denver is also famous for its food, and I have learned that the cheeseburger was first made here in 1935. I encourage you will taste it.

In this, once more thank you for attending, and I wish you very successful symposium and a memorable stay in Denver.

Thank you!

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