



# The 9<sup>th</sup> International Symposium on NORM

ISCORS Meeting, December 6, 2018

Boby Eid (NRC)

Phil Egidi (EPA)



**The Ninth International Symposium on  
Naturally Occurring Radioactive Material**  
23-27 September 2019 - Denver, Colorado

- ▶ To be held in Denver, Colorado
  - ▶ 23-27 September, 2019
  - ▶ Embassy Suites by Hilton
  - ▶ In conjunction with IAEA and CRCPCD
  - ▶ First time this symposium to be held in North America
    - ▶ Previously in Netherlands, Germany, Belgium, Poland, Spain, Morocco, China, and Brazil.



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► Cooperating International Agencies:

- WHO
- ILO
- ICRP
- UNSCEAR
- ISRN
- EPRI
- NCRP



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**SCIENCE—AWARENESS—SOLUTIONS**

**EXTENDED CALL FOR ABSTRACTS**

Proper management of Naturally Occurring Radioactive Material (NORM) is an international challenge. Without proper controls, radiation exposures to the environment, public and workers can be significant.

The Ninth International Symposium, NORM IX, is being held for the first time in North America. NORM IX will address a broad spectrum of issues including radiation protection concerns, management approaches and stakeholder liabilities arising from mismanagement. Topics include, but are not limited to: oil and gas; rare earth and other mineral production; water and wastewater treatment; coal combustion; and phosphate and fertilizers.

**Participants from across government, academia, industry, and other stakeholder groups are encouraged to submit an abstract for consideration.**

**Abstract Submission Details**

Authors must submit abstracts for oral papers and poster presentations by **31 January 2019**. The following topical areas are of particular interest:

- Decommissioning and Site Clean-up
- Environmental Protection
- Radon Measurement and Mitigation
- Stakeholder and Legal Challenges
- Waste Management
- Water and Wastewater Treatment
- Worker Protection
- Case Studies

For symposium information and abstract submission instructions, visit: <https://www.crcpd.org/normix>

NORM IX is organized by the  
Conference of  
Radiation Control Program  
Directors, Inc (CRCPD)



In cooperation with the  
International Atomic  
Energy Agency (IAEA)



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## ▶ NORM IX Conference Main Objective

- ▶ A national/international platform for NORM industries, academic and research institutions, and Federal and States regulatory authorities to share experiences, review progress made, identify opportunities and address challenges and good practices;
- ▶ A forum for exchange of information, networking, and interaction with stakeholders.



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## ▶ NORM IX Main Purpose

- ▶ Address generic approach of radiation protection controls of naturally occurring radioactive materials (NORM);
- ▶ Evaluate practical application/implication of national & international standards;
- ▶ Discuss/Evaluate results of research development and look into practical case studies of industrial applications;
- ▶ Address NORM waste transport and disposal practices, as well as solutions for disposition of NORM residues;
- ▶ Identifying societal needs, stakeholders' suggestions, and technical requirements for regulators and industry on NORM;
- ▶ Address environmental monitoring aspects including sampling and measurements.



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▶ Steering Committee:

- ▶ Portugal
- ▶ Canada
- ▶ USA
- ▶ Great Britain
- ▶ Russia/FSU
- ▶ Brazil
- ▶ Scotland
- ▶ European Commission
- ▶ Africa
- ▶ IAEA
- ▶ China
- ▶ Australia
- ▶ Middle East



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- ▶ Local Organizing Committee:
  - ▶ CRCPD - Ruth McBurney (Grand Pubah), Dave Allard (PA), Sue Smith, Bruce Hirschler, Jared Thompson (AS), Gary Forsee (IL), Pat Daniels (IL)
  - ▶ EPA - Phil Egidi, Angela Shogren
  - ▶ NRC - Bobby Eid
  - ▶ Industry - Rick Jacobi, Mel Hebert, Scott Winters
  - ▶ Academia - Tom Johnson (CSU)
  - ▶ IAEA - Burcin Okyar, Jizeng Ma, Ekaterina Panteleymonova



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- ▶ Current Activities:
  - ▶ Preliminary Budget and Program circulated to Steering Committee
  - ▶ Vendor and Sponsorship Package being compiled
  - ▶ Registration Form being compiled - Go live in December or January
  - ▶ Website Development Continuing
  - ▶ Call for Abstracts open until January 31, 2019
    - ▶ Commercial software for abstract and program
    - ▶ Dozens of abstracts already from overseas
  - ▶ Grant from CDC to conduct a workshop on oil and gas TENORM



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- ▶ Plenary Session
  - ▶ Dual Tracks on Talks
  - ▶ Poster Sessions
  - ▶ Panel Discussions
  - ▶ NORM-101 8-hr course
  - ▶ CDC Workshop on Oil and Gas TENORM
  - ▶ Other short courses (2-hr)
- ▶ Social Events
    - ▶ Central City
    - ▶ Red Rocks
    - ▶ 16 St Mall Pub Crawl
    - ▶ Clean Harbors Deer Trail
    - ▶ Banquet



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▶ **Topical Areas:**

- ▶ **Decommissioning and Site Clean-up**
- ▶ **Environmental Protection**
- ▶ **Radon Measurement and Mitigation**
- ▶ **Post Closure/Legacy Management**
- ▶ **Stakeholder and Legal Challenges**
- ▶ **Waste Management**
- ▶ **Worker Protection**
- ▶ **Case Studies**



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- ▶ Industrial Sectors:
- ▶ Water and Wastewater Treatment
- ▶ Oil and Gas
- ▶ Rare Earths
- ▶ Phosphogypsum
- ▶ Coal Combustion Residuals
- ▶ Geothermal
- ▶ Red Mud
- ▶ Building Materials
- ▶ Uranium Recovery
- ▶ Hard Rock Mine wastes



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- ▶ Next Steps:
  - ▶ Finalize session tracks
  - ▶ Vet abstracts
  - ▶ Sponsorship and vendor calls
    - ▶ We will be in touch soon!
  - ▶ Advertising/Marketing
  - ▶ We need your help in getting the word out!



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- ▶ [www.crcpd.org/norm9](http://www.crcpd.org/norm9)
  
- ▶ There is nothing like Denver in September
  - ▶ Fall colors
  - ▶ Great weather
  - ▶ Easy access...



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- ▶ ISCORS Members NORM IX Contacts:
  - ▶ Ruth McBurney (CRCPD)
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