# International Conference on the Management of Naturally Occurring Radioactive Material (NORM) in Industry

19 - 30 October 2020

**PROGRAMME** 

Organized by the International Atomic Energy Agency (IAEA)

Virtual Event

### **Programme Committee:**

P. Egidi, Chairman, USA

F. Harris, AUS

G. Jonkers, NLD

A. Joubert, ZAF

P. Letessier, FRA

J. Lewis, USA

B. Mazzilli, BRA

J. Paju, EST

U. Schwela, FIN

K. Smith, USA

N. Tsurikov, AUS

M. Valinhas, BRA

R. Wiegers, NLD

D. Wisnubroto, IDN

### Conference

President: J. Lewis, USA

**IAEA Secretariat:** 

Scientific Secretaries: H. Monken Fernandes, NEFW

B. Okyar, NSRW

F. Zhiwen, NSRW

Conference Organizer: T. Danaher, MTCD

Administrative Support: B. Altenhofer, NEFW

I. Kridtner, NEFW

Rapporteur: P. Booth, UK

Working Language: English

**Resolutions:** No resolutions may be submitted for consideration

on any subject; no votes will be taken.

## IAEA Conference and Meetings Application



Participants are encouraged to access the conference via the the "IAEA Conference and Meetings" App. A desktop version is available here. You can also download the app on <u>Google Play</u> and the <u>iTunes Store</u>. For optimal viewing and participation in the conference we highly recommend using the desktop version where possible.

Android	iPhone

The functions and features of the App for smartphones and tablets will be used for various purposes during the event:



View the live stream of all conference sessions



View an up to date programme



Read abstracts and bio information of speakers



View contributed posters and interact with authors



Raise questions to speakers during sessions



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### **TIMETABLE**

# Monday, 19 October 2020

Time	Session No.	Session Title / Break
14:00–15:10		Opening of the Conference
15:15–17:00		Panel – NORM under the Perspective of Different Stakeholders

# Tuesday, 20 October 2020

Time	Session No.	Session Title / Break
12:00–13:30		Workshop "Perspective from the Oil and Gas Industry"
14:00–17:00	1	Plenary Session – National Policies and Strategies

# Wednesday, 21 October 2020

Time	Session No.	Session Title / Break
12:00–13:30		Workshop "Uranium and other Metal Resources in Mining and Milling Wastes – Towards Circular Material Use"
14:00-17:00	2	Plenary Session – NORM Inventories

# Thursday, 22 October 2020

Time	Session No.	Session Title / Break
12:00–13:30		Workshop "Phosphates for Sustainable Development: Fertilizers and Phosphogypsum in the Circular Economy"
14:00–17:00	3	Plenary session – Experiences Related to Decommissioning of Facilities and Remediation of Contaminated Sites

### Friday, 23 October 2020

Time	Session No.	Session Title / Break
12:00–13:30		Workshop "Sampling and Radiological Characterization of NORM Residues and Wastes"
14:00–17:00	4a	Plenary Session - Characterization in Industrial Facilities and in the Environment

Time	Session No.	Session Title / Break
14:00–17:00	4b	Plenary session – Characterization in Industrial Facilities and in the Environment

# Monday, 26 October 2020

Time	Session No.	Session Title / Break
14:00–16:00		Discussion Lobby "The circular Economy in the Context of the Sustainable Development – Its Meaning to the NORM Industry'

# Tuesday, 27 October 2020

Time	Session No.	Session Title / Break
12:00–13:30		Workshop "Groundwater 360°"
14:00–17:00	5	Plenary Session – Transportation of NORM Material and Transboundary Issues

# Wednesday, 28 October 2020

Time	Session No.	Session Title / Break
12:00-13:30		Workshop "Communication the Radiological Risks of NORM"
14:00-17:00	6	Plenary Session – Solutions for Residue and Waste Management

# Thursday, 29 October 2020

Time	Session No.	Session Title / Break
12:00-13:30		Workshop "Exhibitors"
14:00-17:00	7	Special Session on Emerging Issues

# Friday, 30 October 2020

Time	Session No.	Session Title / Break
14:00–17:00		Wrap-up of the Conference and Closing Session

### MONDAY, 19 October 2020

### 14:00-15:10 OPENING SESSION

Time	Name	Designating Member State/Organization	Title (as applicable: Opening Address; Welcome Address; Keynote Address or Title)
14:00-14:05	H. Monken Fernandes	IAEA - NEFW - Scientific Secretary NORM2020	General Information on the Conference
14:05–14:15	R. Grossi	IAEA – Director General	Welcome Remarks
14:15–14:25	J. Lewis Chervon United States of America	Conference President	Conference Perspective and Intended Outcomes
14:25–14:45	IAEA Member States Authorities		Pre-Recorded Opening Remarks
14:45–14:55	C. Xerri	IAEA - NEFW – Director	Development of Sustainable solutions for NORM Management
44.55 45.05	P. Johnston	IAEA - NSRW – Director	
14:55–15:05	1.0011131011	IAEA - NSRW — DIIECTOI	Perspectives on the Safe Management of NORM

# MONDAY, 19 October 2020

15:15 - 17:00 PANEL:

NORM under the Perspective of

Different Stakeholders

Chairperson: Janelle Branch Lewis - Chevron/USA

Time	Name	Designating Member State/Organization
	I. Bahari	Malaysia/Lynas Corporation
	R. Chavasse	United Kingdom/Tantulum – Niobium International Study Center
15:15 – 17:00	J. De France	World Health Organization (WHO)
	P. Egidi	United States of America/United States Environmental Protection Agency
	S. Foster	United Nations Economic Commission for Europe (UNECE)

Time	Name	Designating Member State/Organization
	A. Stackhouse	United Kingdom/Environmental Agency
15:15 – 17:00	C. Xerri	NEFW – Director

# TUESDAY, 20 October 2020

14:00-17:00 SESSION 1:

**National Policies and Strategies** 

Chairpersons: P. Egidi, USA D. Wisnubroto, Indonesia

### IAEA Scientific Secreatry: Z. Fan, IAEA/NSRW

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00		Chairs		Introductory Remarks
14:10	312	J.F. Lecomte	ICRP	Keynote Address: The ICRP Recommendations for NORM Management
14:25	308	A. Gonzales	Argentina	The Scope of Radiation Safety Standards vis-à-vis NORM
14:45	6	G. Makhmudova	Kyrgyzstan	Challenges in Remediation Policy and Control Responsibilities of the Radioactive and Hazardous Wastes
15:00	132	P. Schmidt	Germany	The WISMUT Policy and Strategy for Remediation of the German Uranium Production Legacy Sites
15:15	87	V. Zahrawati	Indonesia	Analysis of Indonesian Policy on Management of NORM Waste and Residue and the Implementation Problems
15:30	223	M. García- Talavera	Spain	Considerations in Developing Policies and Strategies for the Management of NORM
15:45	255	M. Payyazhi Vadakkekara	India	Radiological Issues in NORM Related Industries
16:00	268	K. Mrabit	Morocco	Regulatory Control of Industrial Activities Generating Residues Containing NORM in Morocco
16:15				Q/A Session
16:55		Chairs		Closing Remarks

# WEDNESDAY, 21 October 2020

SESSION 2: 14:00-17:00

**NORM Inventories** 

Chairpersons: A. Joubert, South Africa R. Wiegers, The Netherlands

IAEA Scientific Secretary: B. Okyar, IAEA/NSRW

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00	-	Chairs		Introductory Remarks
14:10	88	W. Schroeyers	Belgium	Keynote Address: A New Technical Guidance on how to establish a NORM Inventory
14:25	55	L. Lopez	Argentina	Sustainability Aspects of the Uranium Production Cycle and NORM in Argentina
14:40	260	M.T. Kekana	South Africa	The South African NORM Inventory and Management of Waste Material above Release Limits
14:55	86	R. Wiegers	The Netherlands	NORM Inventories; the Dutch Approach
15:10	248	Y. Dang	People's Republic of China	The NORM Survey Results on the Second National Pollution Source Census
15:25	56	N. F. Gonçalves dos Santos	Brazil	Current Profile of NORM conventional Mining and Milling Facilities in Brazil
15:40	171	M. Lajos	Hungary	Assessing the Survey of NORM Activities in Hungary
15:55	238	D. O. Kpeglo	Ghana	Overview of NORM related Industries in Ghana
16:10				Q/A Session
16:50		Chairs		Closing Remarks

### THURSDAY, 22 October 2020

14:00-17:00 **SESSION 3:** 

Experiences related to Decommissioning of Facilities and Remediation of

**Contaminated Sites** 

Chairpersons: F. Harris, Australia

K. Smith, USA

IAEA Scientific Secretary H. Monken Fernandes, IAEA/NEFW

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00		Chairs		Introductory Remarks
14:10		H. Monken- Fernandes	IAEA	Perspectives of Decommissioning in The Oil and Gas Industry
14:30	309	A. Lazykina	IAEA	Application of Circular Economy Concept in the Context of Nuclear Decommissioning – Waste Management Hierarchy and Sustainability Principles
14:45	53 54	T. Cresswell A. McIntosh	Australia	Assessing the Risk of Norm Scale to Marine Biota from Offshore Oil and Gas Decommissioning
15:10	78	A. T. K. Ikonen	Finland	Integrated Site Descriptive Modelling as A Coherent Means of Stepwise Enhancement of Conceptual Model for NORM Situations
15:25	263	L. Pasek	Czech Republic	The new Conception of Waste Rock Piles Disposal after Uranium Mining in Příbram
15:40	218	H. Jung	Germany	Getting Uranium or REE Projects Licensed and Efficiently Operated Through Adapted Nuclear Technologies
15:55	270	L. Al-Attar	Syria	Use of Phosphogypsum as a Resource for Soil Reclamation
16:10	8	A. Guliyev	Azerbaijan	Management of NORM formed in the Process of Iodine-Bromine Production in Azerbaijan
16:25	60	J. Richards	United States of America	Mississippi Phosphogypsum Stack Remediation
16:40	164	H. Breitkreutz J. Grossmann	Germany	Application of Environmental Radiation Measurement Equipment in Remediation Projects
16:55				Q/A Session

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
17:35	•	Chairs	_	Closing Remarks

# FRIDAY, 23 October 2020

14:00-17:00 SESSION 4a:

**Characterization in Industrial Facilities** 

and in the Environment

Chairpersons: R. Garcia Tenorio, Spain

P. Letessier, France

L. van Velzen, The Netherlands

IAEA Scientific Secretary: A. Mauring, IAEA/NAEL

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00	-	Chairs		Introductory Remarks
14:10	306	R. Garcia Tenorio	Spain	Keynote Address: Laboratory measuring Techniques for Radionuclides in NORM Samples: Difficulties and Challenges
14:30	188	A. Pepperosa	Italy	The CORSAIR Project a Cloud Oriented Radiation Sensor for Advanced Investigation of Rocks
14:45	99	J. C. Dellamano	Brazil	In Situ Characterization of NORM Waste from the Oil Industry
15:00	95	S. Al-Nasri	Iraq	Environmental Radioactivity of TE-NORM Waste Produced from Petroleum Industry in Elected Oil Fields in Maysan - Southern of Iraq
15:15	267	B. Daniel	France	Determination of Radioactivity Concentrations in Building Materials with Respect to French Decree
15:30	163	S. Kask	Estonia	Representative sampling of NORM Contaminated Construction waste
15:45	21	S. Saidou	Cameroon	Running the Environmental Monitoring Programme in Cameroon: From Exploration and Mining to Site Characterization and Remediation
16:00				Q/A Session
16:45	_	Chairs		Closing Remarks

### FRIDAY, 23 October 2020

14:00-17:00 PARALLEL SESSION 4b:

**Characterization in Industrial Facilities** 

and in the Environment

Chairpersons: B. Mazzilli, Brazil

D. Bradley, United Kingdom

### IAEA Scientific Secretary R. Padilla Alvarez, IAEA/NAPC

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00	-	Chairs		Introductory Remarks
14:10	265	R. Padilla Alvarez	IAEA	Keynote Address: In Situ Measurements and Mapping to Support Characterization of NORM Contaminated Sites
14:30	138	K. N. Myaing	Myanmar	Measurement of NORM in Black sand and Soil Samples
14:45	169	S. Wang	People's Republic of China	A Case Study of radiological Investigation in the Oil and Gas Fields in Western China
15:00	241	S. Mariani	Italy	NORM Characterization Using Laboratory Measurements: An Italian Case Study
15:15	275	E. Ntalla	Greece	Methodology Development for Characterization in the Field of NORM Originating from Oil Industries by using a LaBr <sub>3</sub> (Ce) Scinitllator
15:30	217	B. P. Borja	Spain	Radiological Impact Study from a Site of a Former Dicalcium Phosphate Plant
15:45	199	P. R. Dabare	Sri Lanka	Method Validation of In-Situ Gamma Spectroscopy for Quantification of NORM
16:00	37	T. Mohamad El Hajj	Brazil	Radiological and Mineralogical Characterization of Rare Earth Elements Bearing Mineral from Pocos de Caldas (Brazil)
16:15				Q/A Session
16:55		Chairs		Closing Remarks

### TUESDAY, 27 October 2020

14:00-17:00 SESSION 5:

Transportation of NORM Material and

Transboundary Issues

Chairpersons: S. Pepin, Belgium

U. Schwela, Finland

### IAEA Scientific Secretary: C. Massey, IAEA/NSNS

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00		Chairs		Introductory Remarks
14:10	310	M. van der Schaaf	The Netherlands	Keynote Address: The Transboundary Movement of Norm Residues in Various North-Sea Countries: National Legal and Regulatory Framework
14:25	41	G. Ekong	Nigeria	Evaluation of Norm Content from Coltan Mining in Nigeria prior to Export
14:40	215	N. Tsurikov	Australia	Recent Restrictions on Norm Information from Industry – Back To 1980's?
14:55	224	H. Janzekovic	Slovenia	NORM Triggering Radiation Detectors
15:10	274	S. Mukhopadhyay	United States of America	Advanced Technical Approaches to Detect and Discern TENORM in Commercial Transportation
15:25	81	F. M. R. Al-Ali	Iraq	Overview of NORM Situation in Iraq: Challenges and Solutions
15:40	141	L. Rodrigues	Brazil	The First Norm Export and Disposal from Brazilian O&G Industry. A Success Case
15:55		C. Massey	IAEA	Facilitation of Safe Transport of NORM – The Support that Nuclear Security Can Provide
16:10			·	Q/A Session
16:50		Chairs		Closing Remarks

### WEDNESDAY, 28 October 2020

14:00-17:00 SESSION 6:

Solutions for Residue and Waste

Management

Chairpersons: J. Paju, Estonia

M. Valinhas, Brazil

### IAEA Scientific Secretary: H. Monken Fernandes, IAEA/NEFW

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00		Chairs		Introductory Remarks
14:10	314	N. Solente	France	Keynote Address: Management of Waste with High Natural Radioactivity (TeNORM)
14:30	311	J. Hilton	United Kingdom	Keynote Address NORM Industries in the Circular Economy: Time to Reboot?
14:50	229	H. Razali	Malaysia	The first Repository for Disposal of NORM Waste in Malaysia
15:05	254	C. Stiels	Germany	On-site NORM Waste Treatment for Safe Final Disposal
15:20	4	R. Bilak	Canada	Achieving Zero-Discharge NORM Waste Disposal using Slurry Fracture Injection (SFI) Technology
15:35	170	J. M. Godoy	Brazil	Back-End Solutions for the NORM Waste Generated in Oil and Gas Industry in Brazil
15:50	147	B. Gerstmann	IAEA	Witwatersrand Gold Tailings as a Possible Uranium Resources: Opportunities and Constraints
16:05	144	M. Al-Masri	Syria	Salt Production from Produced Water Containing NORM in Oil Industry: Risk Assessment and NORM Waste Management
16:20	249	Y. Kang	People's Republic of China	Management on Radioactive Waste from NORM Industries in China
16:35				Q/A Session
17:15		Chairs		Closing Remarks

### THURSDAY, 29 October 2020

14:00-17:00 SPECIAL SESSION

**Emerging Issues** 

Chairpersons: A. Constantina, IAEA/NEFW G. Jonkers, The Netherlands

### IAEA Scientific Secretary: B. Altenhofer, IAEA/NEFW

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper
14:00		Chairs		Introductory Remarks
14:10	307	J. D'Hooghe	Belgium	Keynote Address: Demolition and Norm: A Lack of Knowledge
14:30	183	B. Lottermoser	Germany	Uranium in Mine Waste: A Problem with an Opportunity
14:45	313	U. Kral	Austria	Circular Economy and the Need for Safe Sinks
15:00	182	J. Muzak	Czech Republic	WNU SUP – Capacity Building In U-Production and Norm Industry
15:15	264	H. Barros	Venezuela	Venezuelan Oil and Mining Industries: Existing Situations and Challenges
15:30	202	T. Perko	Belgium	Contribution of Social Sciences Research to a Successful Norm Management: Main Pitfalls and Recommendations
15:45	40	L. R. Scarlatta	Argentina	Social Impact due to the presence of NORM in the Construction of a Mountain Highway, Cordoba
16:00	185	A. Pepperosa	Italy	An Innovative Platform Allowing Digitalization of Operative Radiation Protection Measurements and to Characterize NORM and TENORM
16:15	193	K. Oussein	Burkina Faso	Adapted Method of Radiological Risk Assessment in Gold Extraction Mining in Burkina Faso
16:30				Q/A Session
17:10		Chairs		Closing Remarks

# FRIDAY, 30 October 2020

# 14:00-15:10 WRAP-UP OF THE CONFERENCE AND CLOSING SESSION

Time	Name	Designating Member State/Organization	Title (as applicable: Opening Address; Welcome Address; Keynote Address or Title)
14:00-14:10	H.Monken-Fernandes	IAEA	Introductory Remarks
14:10–14:25	S. Sanchez	Venezuela	"From the Line to the Circle" Young Generation Contest Winner
14:25-14:30	H. Monken-Fernandes	IAEA	Development of Sustainable solutions for NORM Management
14:30-14:35	B. Okyar	IAEA	Perspectives on the Safe Management of NORM
14:35–14:55	J. B. Lewis	United States of America/Chevron	Summary of the President of the Conference
14:55–16:30	Session Chairs		Report of Sessions
16:30–16:45	L. van Velzen		NORM X – Announcement of the Conference
16:45	M. Chudakov	IAEA – Deputy Director General Nuclear Energy Department	Final Address from IAEA

### IAEA PUBLICATIONS RELATED TO THE SUBJECT OF THE EVENT

Safety Series Related Publication			
IAEA Safety Standards - Safety Fundamentals No. SF-1	Fundamental safety Principles		
IAEA Safety Standards Series No. GSR Part 3 (2014)	EC, FAO, IAEA, ILO, NEA/OECD, PAHO, UNEP, WHO, Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards		
IAEA Safety Standards Series No. GSR Part 1 (Rev. 1) (2016).	Governmental, Legal and Regulatory Framework for Safety		
IAEA Safety Standards Series No. GSG-9 (2018)	Regulatory Control of Radioactive Discharges to the Environment		
IAEA Safety Standards Series No. GSG-7 (2018)	IAEA, ILO, Occupational Radiation Protection		
IAEA Safety Standards Series No. GSR- Part 2 (2016)	Leadership and Management for Safety		
IAEA Safety Standards Series No. SSG-32 (2015)	Protection of the Public against Exposure Indoors due to Radon and Other Natural Sources of Radiation		
IAEA Safety Standards Series GSR Part 6, (2014)	Decommissioning of Facilities		
IAEA Safety Standards Series No. SSG-23, (2012).	The Safety Case and Safety Assessment for the Disposal of Radioactive Waste,		
IAEA Safety Standards Series No. GSG-3 (2012)	The Safety Case and Safety Assessment for the Predisposal Management of Radioactive Waste		
IAEA Safety Standards Series No. SSR Part 5, (2011).	Disposal of Radioactive Waste		
IAEA Safety Standards Series No. SSR Part 5, (2011).	Disposal of Radioactive Waste		
IAEA Safety Standards Series, No. SSG-29. (2011)	Near Surface Disposal Facilities for Radioactive Waste		
IAEA TECDOC No.1728 (2013)	Regulatory Control for the Safe Transport of Naturally Occurring Radioactive Material (NORM)		
IAEA-TECDOC-1660, (2011)	Exposure of the Public from Large Deposits of Mineral Residues		
In Publication			
IAEA Safety Standards Series No. GSG-15 (in publication)	Remediation Strategy and Process for Areas Affected by Past Activities or Events		
IAEA Safety Standards Series No. SSG-60 (in publication)	Management of Residues Containing Naturally Occurring Radioactive Material from Uranium Production and Other Activities		

Nuclear Energy Series Publications		
IAEA Nuclear Energy Series NW-G- 1.1. (2012)	Policies and Strategies for Radioactive Waste Management	
IAEA Nuclear Energy Series NW-G- 3.1 (2015)	Policy and Strategies for Environmental Remediation	
IAEA Nuclear Energy Series NW-G- 2.1 (2011)	Policies and Strategies for the Decommissioning of Nuclear and Radiological Facilities	
IAEA Nuclear Energy Series NW-T- 1.20 (2010)	Disposal Approaches for Long Lived Low and Intermediate Level Radioactive Waste	
IAEA Nuclear Energy Series NW-T- 3.8 (2019)	Developing Cost Estimates for Environmental Remediation Projects	
IAEA Nuclear Energy Series NW-T- 3.5 (2014)	Communication and Stakeholder Involvement in Environmental Remediation Projects	
IAEA Nuclear Energy Series NF-T-1.2 (2010)	Best Practice in Environmental Management of Uranium Mining	
IAEA Nuclear Energy Series NF-T-1.3 (2010)	Radioelement Mapping	
IAEA TECDOC No. 1712 (2013)	Management of NORM Residues	

### PARTICIPATION IN IAFA SCIENTIFIC CONFERENCES

Governments of Member States and those organizations whose activities are relevant to the conference subject matter are invited to designate participants. In addition, the IAEA itself may invite a limited number of scientists as invited speakers. Only participants designated or invited in this way are entitled to present papers and take part in the discussions.

Scientists interested in participating in any of the IAEA conferences should request information from the Government authorities of their own countries, in most cases the Ministry of Foreign Affairs or national atomic energy authority.

### **PUBLICATIONS**

### **Proceedings**

The proceedings of the conference containing all presentations and posters delivered at the conference, as well as the findings and recommendations, will be published by the IAEA as soon as possible after the conference.

### Other IAEA Publications

All IAEA publications may be ordered directly from the Sales and Promotion Unit, International Atomic Energy Agency, P.O. Box 100, A-1400 Vienna, Austria.

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### FORTHCOMING SCIENTIFIC CONFERENCES SCHEDULED BY THE IAEA

### 2020

(Virtual event) International Conference on Radiation Safety (CN-279), 9-13 November

(Virtual event) International Conference on Molecular Imaging and Clinical PET-CT: Paving the Way Towards Personalized Medicine and Theranostics (IPET-2020) (CN-285), 24-26 November 2020

### 2021

(Virtual event) International Conference on Advances in Radiation Oncology (ICARO3), 16-19 February

International Conference on a Decade of Progress After the Fukushima-Daiichi: Building on the Lessons Learned to Further Strengthen Nuclear Safety, 22-26 February

Second International Conference on Applications of Radiation Science and Technology (ICARST-2021), 19-23 April, Vienna, Austria

International Conference on Fast Reactors and Related Fuel Cycles (FR21), 10-13 May, Beijing, China

28th IAEA Fusion Energy Conference (FEC2020), 10-15 May, Nice, France

International Symposium on Sustainable Animal Production and Health - Current Status and Way Forward, 28 June-2 July, Vienna, Austria

International Conference on Operational Safety of Nuclear Power Plants, 30 August-3 September, Beijing, China

Scientific Forum, 21-22 September, Vienna, Austria

EPR2021: Developing Preparedness for National and International Emergency Response, 11-15 October, Vienna, Austria

International Ministerial Conference on Nuclear Power in the 21st Century, 18-20 October, Washington, USA

International Conference on Radioactive Waste Management: Solutions for a Sustainable Future, 1-5 November, Vienna, Austria

International Conference on the Safe and Secure Transport of Nuclear and Radioactive Materials, 13-17 December, Vienna, Austria

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For information on forthcoming scientific meetings, please consult the IAEA web site: http://www.iaea.org/events