



The Workshop on Signatures of Man-Made Isotope Production (WOSMIP)

Workshop Program

(Draft Near Final Program)

Workshop Program - Monday

3.00 pm	Delegate Early Registration - Pullman Sydney Hyde Park
4.45 pm	Delegates meet in the Lobby of the Pullman Sydney Hyde Park for the short walk to the WOSMIP VII Welcome Event
5.00 pm	WOSMIP VII Welcome Event sponsored by Provisional Technical Secretariat for the Comprehensive Nuclear-Test-Ban Treaty Organization (Pre-registration required) Wood and Smoke Bar, 77 Stanley Street, Darlinghurst (http://woodandsmokebar.com.au/)
7.00 pm	Welcome Event Concludes Evening at Leisure

Workshop Program - Tuesday

8.00 am	Delegate Registration – Level 1, Pullman Sydney Hyde Park
	Session 1: Welcome and Workshop Overviews <i>Chair: Judah Friese, Pacific Northwest National Laboratory</i>
9.00 am	Welcome to WOSMIP VII <i>Adrian Paterson, CEO, Australian Nuclear Science and Technology Organisation</i>
9.10 am	WOSMIP VII Kick-off <i>Emmy Hoffmann, Australian Nuclear Science and Technology Organisation</i>
9.20 am	The History of WOSMIP <i>Paul Saey, International Atomic Energy Agency</i>
9.35 am	WOSMIP VII Overview <i>Ted Bowyer, Pacific Northwest National Laboratory</i>
9.50 am	Morning Tea (Sponsored by INVAP, S.E.) and Group Photo
10.35 am	Updated Worldwide Background of CTBT Relevant Xenon Isotopes Based on IMS Data and Mobile Systems <i>Tammy Taylor, Director, International Data Centre, Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization</i>
10.55 am	Status of the Noble Gas capability at the CTBTO International Monitoring System <i>Nikolaus Hermanspahn, Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization</i>
11.15 am	How can CTBTO NG Stations Be Impacted By Radioxenon Releases From An Isotope Production Facility <i>Jonathan Baré, Preparatory Commission for the Comprehensive Nuclear-Test-Ban-Treaty Organization</i>
11.35 am	An Overview of Global Atmospheric Radioxenon Background Simulation Studies <i>Sylvia Generoso, Commissariat à l'Énergie Atomique et aux Énergies Alternatives</i>
11.55 am	Investigation of the Radioxenon Background Trend at Noble Gas IMS Systems <i>Christophe Gueibe, Belgian Nuclear Research Centre</i>
12.15 pm	ATM Analysis Results on Radioxenons Detected in Japan by JAEA/NDC <i>Yuichi Kijima, Japan Atomic Energy Agency</i>
12.35 pm	Working Lunch and Introductions
	Session 2: Background Sources <i>Chair: Martin Kalinowski, Preparatory Commission for the Comprehensive Nuclear-Test-Ban-Treaty Organization</i>

Tuesday, 4th December, 2018

2.00 pm	Observations of Radioxenon Emissions from BWRs Compared to Stack Data <i>Anders Ringbom, Totalförsvarets Forskningsinstitut</i>
2.20 pm	Research Reactor Contributions to Radioxenon Atmospheric Inventories <i>Steven Biegalski, Georgia Institute of Technology</i>
2.40 pm	Physical Characterization of filters from German and Sweden radiological monitoring networks with Ruthenium-106 from 2017 <i>Ian Hoffman, Health Canada</i>
3.00 pm	European Monitoring of ¹⁰⁶Ru Airborne Concentrations in Fall 2017 <i>Olivier Masson, Institut de Radioprotection et de Sûreté Nucléaire</i>
3.20 pm	Afternoon Tea (Sponsored by INVAP, S.E.)
3.50 pm	Isotopic Ratios for Ru-103/Ru-106 <i>Jonathan Burnett, Pacific Northwest National Laboratory</i>
4:10 pm	Using Machine Learning to Estimate Atmospheric Sources from the 2017 Ruthenium Detections across Europe <i>Lee Glascoe, Lawrence Livermore National Laboratory</i>
4.30 pm	Contribution of NPP Emissions to the Xe-133 Measurements at the Remote IMS Stations <i>Jolanta Kusmierczyk-Michulec, Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization</i>
4.50 pm	Roundtable Discussion
5.50 pm	Poster Session with End of Day Drinks <i>Session Sponsor: Mirion Technologies (Canberra)</i>
7.30 pm	Close of Day 1

Workshop Program - Wednesday

8.30 am	Delegate Registration – Tea and Coffee on Arrival
	Session 3: Research to Reduce the Radioxenon Impact on the International Monitoring System <i>Chair: Johan Camps, Belgian Nuclear Research Centre</i>
9.00 am	Welcome to Day 2 <i>Johan Camps, Belgian Nuclear Research Centre</i>
9.05 am	Overview of the CRP <i>Tom Hanlon, International Atomic Energy Agency</i>
9.25 am	Sharing Experience on Mitigating Radioxenon Through Preparation of Design Studies for Three Civilian Nuclear Facilities <i>Christophe Gueibe, Belgian Nuclear Research Centre</i>
9.45 am	Development of Radioxenon Abatement System for the Fission Mo-99 Production Process <i>Suseung Lee, Korea Atomic Energy Research Institute</i>
10.05 am	Testing and Validation of a Radioxenon Trap System under the EU Council Decision VI Project: Results and Outcomes <i>Dominique Moyaux, Institut National des Radioéléments</i>
10.25 am	Verification and Validation of Atmospheric Transport Models for Nuclear Security with the UF Training Reactor <i>Andreas Enqvist, University of Florida</i>
10.45 am	Morning Tea (Sponsored by Scienta Sensor Systems)
	Session 4: Current Mo-99 Production Overview: Recent and Planned Activities at Isotope Production Facilities <i>Chair: Paul Saey, International Atomic Energy Agency</i>
11.15 am	Radioisotopes Used in Nuclear Pharmacy and Nuclear Medicine Practice: Perspectives from the United States <i>Neil Petry, Duke University</i>
11.35 am	Mo-99 Production Overview <i>Tom Hanlon, International Atomic Energy Agency</i>
11.50 am	CNEA Update <i>Eduardo Carranza, Comisión Nacional de Energía Atómica</i>
12.05 pm	Radioisotope Production Updates in Jordan Research and Training Reactor <i>Ahmad Malkawi, Jordan Atomic Energy Commission</i>
12.20 pm	Status and Challenges of the IRE LEU Conversion Program <i>Dominique Moyaux, Institut National des Radioéléments</i>

Wednesday, 5th December, 2018

12.35 pm	Update at Curium <i>Luis Barbosa, Curium Pharma</i>
12.50 pm	Working Lunch
2.20 pm	Update on Isotope Production Plans in Algeria <i>Oualid Mahdaoui, Permanent Mission of Algeria to the United Nations and Other International Organisations in Vienna</i>
2.35 pm	Xe-133 for Medicine and Industry <i>Ira Goldman, Lantheus Medical Imaging</i>
2.55 pm	Development of Fission Mo-99 Process and Facility for the New Research Reactor of Korea <i>Suseung Lee, Korea Atomic Energy Research Institute</i>
3.10 pm	Plans by NWMI <i>Carolyn Haass, Northwest Medical Isotopes</i>
3.25 pm	Afternoon Tea (Sponsored by Scienta Sensor Systems)
3.55 pm	Roundtable Discussion
4.55 pm	Update at Ensterna <i>Yudiutomo Imardjoko, Ensterna</i>
5.10 pm	Radioisotope Mo-99 Production from LEU In INUKI <i>Bambang Herutomo, Indonesia Nuclear Technology and Services</i>
5.25 pm	Argonne National Laboratory Support for Fission Mo-99 Production <i>Alex Brown, Argonne National Laboratory</i>
5.45 pm	Close of Day 2
6.45 pm	Delegates to Meet in the Lobby of the Pullman Sydney Hyde Park for short walk to the Australian Museum
7.00 pm	Workshop Dinner – Australian Museum (Pre-registration Required) Sponsored by ANSTO, ARPANSA, ASNO, GeoScience Australia, and the Pacific Northwest National Laboratory

Workshop Program – Thursday

8.30 am	Delegate Registration – Tea and Coffee on Arrival
	Session 5: Stack Measurements <i>Chair: Ian Hoffman, Health Canada</i>
9.00 am	Welcome and The STAX Project Overview <i>Lori Metz, Pacific Northwest National Laboratory</i>
9.20 am	Use of and Procedures for Sharing Stack Release Data Received by the Preparatory Commission for the Comprehensive Nuclear-Test-Ban-Treaty Organization <i>Martin Kalinowski, Preparatory Commission for the Comprehensive Nuclear-Test-Ban-Treaty Organization</i>
9.40 am	Xenon Release Source Term Estimation Based on Near-range Monitoring and Atmospheric Dispersion Modelling <i>Johan Camps, Belgian Nuclear Research Centre</i>
10.00 am	Radio-isotope Emissions from Canada's Chalk River Medical Isotope Production Facility <i>Guy Jonkmans, Defence R&D Canada</i>
10.20 am	How the UK National Data Centre utilises Stack monitoring data in support of the Comprehensive Nuclear Test-Ban Treaty <i>Richard Britton, Atomic Weapons Establishment</i>
10.40 am	Morning Tea (Sponsored by ISTI)
11.10 am	The STAX Project – Data Processing infrastructure <i>Matthias Auer, Instrumental Software Technologies</i>
11.30 am	CTBTO Platform for Handling Stack Release Data <i>Abdelhakim Gheddou, Preparatory Commission for the Comprehensive Nuclear-Test-Ban-Treaty Organization</i>
11.50 am	Investigating Noble Gas Emissions from Nuclear Facilities in Central Europe <i>Andreas Bollhöfer, Bundesamt für Strahlenschutz</i>
12.10 pm	Radioxenon and Radioargon Emission Signatures from Chalk River Laboratories <i>Steven Biegalski, Georgia Institute of Technology</i>
12.30 noon	Working Lunch – Discussion on the Use of Stack Data
2.00 pm	ANSTO Experience with the Stack Monitoring <i>Tom Loosz, Australian Nuclear Science and Technology Organisation</i>
2.20 pm	Installation of STAX Monitoring System at IRE – Performances Evaluation <i>Benöit Deconninck, Institut National des Radioéléments</i>
2.40 pm	An Autonomous Spectroscopic Noble Gas Monitor with Continuous Operation and Analysis <i>James Zickefoose, Mirion Technologies (Canberra)</i>

Thursday, 6th December, 2018

3.00 pm	Tailored Designed Stack Monitor for the STAX Project <i>Mariana Di Tada, INVAP S.E.</i>
3.20 pm	Afternoon Tea (Sponsored by ISTI)
3.50 pm	Simulating Xe-133 Concentrations at IMS Noble-Gas-Stations Using Stack Emission Data from Medical Isotope Production Facilities <i>Andy Delcloo, Royal Meteorological Institute Of Belgium</i>
4.10 pm	IPF Gaseous Effluent Stack Monitor Calibration With Customized Detection Geometries and Tailored Gas-like Sources <i>Mariana Di Tada, INVAP S.E.</i>
4.30 pm	3rd ATM Challenge 2018 <i>Christian Maurer, Zentralanstalt für Meteorologie und Geodynamik, Austria</i>
4.50 pm	Roundtable Discussion
5.50 pm	Announcement of the Wozzie Award
6.10 pm	Close of Day 3

Workshop Program – Friday

8.00 am	Delegate Registration – Tea and Coffee on Arrival
	Session 6: ANSTO <i>Chair: Emmy Hoffman, Australian Nuclear Science and Technology Organisation</i>
8.30 am	Welcome to Day 4
8.35 am	ANSTO ANM Facility <i>Michael Druce, Australian Nuclear Science and Technology Organisation</i>
9.05 am	ANM Mo-99 Active Ventilation System <i>Stuart Brink, Australian Nuclear Science and Technology Organisation</i>
9.25 am	Workshop Wrap Up
10.00 am	Board Bus & depart Pullman hotel by 10.10 am
11.00 am	ANSTO Tour – Part 1 <i>Please be sure to wear closed toed shoes for this part of the tour.</i> Tour part 1 (1 hour) Split into 2 (or 3 groups depending on numbers) for tours Group 1 - OPAL/Neutron Scattering 30 min Group 2 - ANM 30 min
12.30 pm	Working Lunch and Quiz ANSTO Discovery Centre
2.00 pm	ANSTO Tour – Part 2 (If needed) <i>Please be sure to wear closed toed shoes for this part of the tour.</i> Tour part 2 (1 hour) Split into 2 (or 3 groups depending on numbers) for tours Group 1 - OPAL/Neutron Scattering 30 min Group 2 - ANM 30 min
2.30 pm	ANSTO Tour – Part 3 (Optional) <i>Delegates not attending Part 3 will depart on a bus for return to Pullman Sydney Hyde Park at 2:30 pm</i> <i>Delegates wishing to attend the extended tour will depart (additional \$28AUD cost for this tour. Sunscreen and hat recommended).</i>
5.00 pm	Delegates depart for return to Pullman Sydney Hyde Park
6.30 pm	Arrive at Pullman Sydney Hyde Park

Workshop Program – Posters

<i>Jonathan Baré</i>	<i>Impact of CRL shutdown on CTBTO North-American noble gas stations</i>
<i>Steven Bell</i>	<i>Radioactive Gas Metrology at NPL</i>
<i>Pierre Bourgouin</i>	<i>Evaluating different alternative sites for IMS stations</i>
<i>Jagoda Crawford</i>	<i>Radon-222 detection in outdoor air and applications in atmospheric transport and mixing studies</i>
<i>Christophe Gueibe</i>	<i>Physical experiments and modelling work on xenon capture</i>
<i>Nikolaus Hermanspahn</i>	<i>Status of the Noble Gas capability at the CTBTO International Monitoring System</i>
<i>Bambang Herutomo</i>	<i>INUKI experience with stack monitoring</i>
<i>Ian Hoffman</i>	<i>Medical Isotope Production and Research Reactors and the Global Radioxenon Background</i>
<i>Miroslav Hyza</i>	<i>Radiological Monitoring of the Atmosphere Using an Autonomous Aerosol Sampler</i>
<i>Martin Kalinowski</i>	<i>What do we need to know to assess how radioxenon emissions from nuclear power plants interfere with nuclear explosion monitoring?</i>
<i>Jolanta Kusmierczyk-Michulec</i>	<i>Influence of emission time resolution on the Atmospheric Transport Modelling (ATM) results</i>
<i>Olivier Masson</i>	<i>European-scale detection of I-131 in early 2017</i>
<i>Lori Metz</i>	<i>Emissions Mitigation R&D for the US Government</i>
<i>Blake Orr</i>	<i>Summary of East Asia Regional National Data Centre Workshop 2018</i>
<i>Yves Pelletier</i>	<i>TheJudge: A Statistical Validation Tool for Atmospheric Transport Modelling</i>
<i>Gary Perkins</i>	<i>Automated Gas Extraction System for the handling of radioactive waste gases from routine carbon-11 production</i>
<i>Eduardo Quintana</i>	<i>Chimney Emission Monitoring of RA-3 Research Reactor at EZEIZA Atomic Center</i>
<i>Kristin Shannon (Presented by Lori Metz)</i>	<i>Progress Toward an LEU Fuel Cycle for Domestic Radioisotope Production from Fission Fragments</i>
<i>Pouneh Tayyebi (Presented by Martin Kalinowski)</i>	<i>Can radioxenon emissions from nuclear research reactors interfere with nuclear explosion monitoring?</i>
<i>Momtaaz Waheed</i>	<i>Current Status of Medical Radioisotope Production in Bangladesh</i>
<i>Matt Watrous</i>	<i>Radioactive Test Materials</i>
<i>Kassoum Yamba</i>	<i>On the usability of event zero time determinations using radioxenon isotopic activity ratios given the real atmospheric background observations</i>