

## NWMDER-2019 Technical-Session Schedule for Monday September 9, 2019 (as of September 3, 2019)

Time	ID	Title	Author(s)	Affiliation(s)
<b>13:30-17:30</b>				
<b>Session M1: Government Policies, Programs and Oversight</b>				
<b>Room: Salon Cartier I</b>				
<b>Chairs: Karine Glenn (CNSC) and Peter Ottensmeyer (Univ. of Toronto)</b>				
13:35-14:00	4	A Sustainability-based Approach to Nuclear Back-End Management	Kristina Gillin	Lloyd's Register
14:00-14:25	57	Regulatory Expectations of a Safety Case for the Long-term Management of Radioactive Waste in Canada	Elias Dagher, Matt Herod, Nancy Greencorn, and Son Nguyen	CNSC
14:25-14:50	78	Pre-licensing Review of Nuclear Waste Management Organization Used Fuel Container Design - Canadian Nuclear Safety Commission Staff Perspective	Glen McDougall and Dan Papaz	CNSC
<b>BREAK</b>				
15:20-15:45	84	Application of the Canadian Environmental Assessment Act to a Near Surface Disposal Facility	Martin Klukas, Michael Labriola, Rachel Gould, and Marci Mehl	CNL, Golder Associates
15:45-16:10	62	Canada's New Nuclear Civil Liability Regime: Its Key Features and Applicability to Nuclear Waste Management Facilities	Jamie Fairchild, Dave McCauley, and Jacques Hénault	NRCan
16:10-16:35	44	IAEA CRP on Research Reactor Spent Fuel Management	Frances Marshall	IAEA
<b>13:30-17:30</b>				
<b>Session M2: Uranium Mining and Milling Waste Management</b>				
<b>Room: Salon York</b>				
<b>Chairs: Tom Calvert (NRCan) and Rina Parker (EcoMetrix)</b>				
13:35-14:00	68	Planning Radiological Risk Mitigation for Remediation of Abandoned Uranium Mines	Elizaveta Petelina, David Sanscartier, and Alexey Klyashtorin	SRC
14:00-14:25	114	A Risk-based Approach to Guide Disposal and Decommissioning Strategies at Former Mine Sites	Rina Parker, Winnie Lee, Jige (Gene) Shen, Janeen Tang, and Don Hart	EcoMetrix
14:25-14:50	70	Former Lorado Uranium Mill Site Remediation Project	Elizaveta Petelina and Skye Ketilson	SRC
14:50-15:15	119	Assessment of Radon Flux From a New and Old Cover at a Decommissioned Uranium Mine in Ontario, Canada	Matthew Herod, Karina Lange, Malcolm McKee, and Dana Pandolfi	CNSC, Univ. of Ottawa
<b>13:30-17:30</b>				
<b>Session M3: Low Level, Intermediate Level and Mixed Waste Management</b>				
<b>Room: Salon Cartier II</b>				
<b>Chairs: David Witzke (OPG) and Tim Dalpee (Bruce Power)</b>				
13:35-14:00	55	Overview of Predisposal Radioactive Waste Management at the IAEA	Nicholas Smith and Rebecca Robbins	IAEA
14:00-14:25	123	Point Lepreau Nuclear Generating Station Waste Management Strategy	Michael Hare	Point Lepreau NGS
14:25-14:50	33	Thermal Decontamination of Low-level Metallic Waste: the Case for Canadian Nuclear Waste Management	Renna Traboulsi, Nathan Tedford, and Craig Imrie	Hatch Ltd
<b>BREAK</b>				
15:20-15:45	3	CSA N292.6 – A New Standard for Long-term Management of Radioactive Waste and Irradiated Fuel	Kristina Gillin and Alan Murchison	Lloyd's Register, NWMO
15:45-16:10	121	Mercury Removal From Highly Acidic Nuclear Waste Streams Using Ion Exchange	Ephraim Bulemela	CNL

\*Non-Conference Proceedings

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13:30-17:30		<b>Session M4: DGR Design, Engineering and Material Science (1)</b> <b>Room: Salon Cartier III</b> <b>Chairs: Paul Gierszewski (NWMO) and Erik Kremer (NWMO)</b>		
13:35-14:00	97	Overview of the Development and Proof Testing of the Engineered Barrier System and Emplacement Technologies for the Long Term Management of Canada's Used Nuclear Fuel	Christopher Lawrence, Dave Doyle, Alan Murchison, and Chris Boyle	NWMO
14:00-14:25	77	Development of the Structural Design Basis of the Long-Term Storage Container for Canada's Used Nuclear Fuel	Xuan Zhang, Lisa Lang, Dave Doyle, and Chris Boyle	NWMO
14:25-14:50	35	Corrosion Studies of the Canadian Used Nuclear Fuel Container	Mehran Behazin, Jeff Binns, and Peter Keech	NWMO
<b>BREAK</b>				
15:20-15:45	60	The Anoxic Corrosion of Copper in Pure, Saline and Sulfide Containing Aqueous Environments	Jeff Binns, Peter Keech, R. Newman, and Nicholas Senior	NWMO, Univ. of Toronto, NRCan
15:45-16:10	103	Non-Destructive Examination (NDE) of Copper Coatings on Full-scale Used Fuel Container Prototypes	Thilan Liyanage, Jean-Francois Martel, Olivier Marcotte, and Dave Doyle	NWMO, Nucleom
16:10-16:35	58	Gettering of Hydrogen by Zircaloy Fuel Cladding in Simulated Used Fuel Containers in a Deep Geologic Repository	Scott Langille, Leigh Corrigan, Nathan Key, Kit Coleman, and Glenn McRae	Carleton Univ.
16:35-17:00	41	Microbial Corrosion of Used Fuel Containers	Mythreyi Sivaraman, Jorge Garcia, and Kumaraswamy Ponnambalam	Univ. of Waterloo
13:30-17:30		<b>Session M5: Waste Characterization, Processing, Packaging and Minimization</b> <b>Room: Salon Albert</b> <b>Chairs: Mike Grey (Kinectrics) and Courtney Power (CNL)</b>		
13:35-14:00	28	Review of Ontario Power Generation's Packaging and Container Design for Storage of Waste Scintillation Fluid	Katherine Manarin and Michael McDowall	OPG
14:00-14:25	90	OPEX: UK Management of Low Level Radioactive Waste (LLW)	Yung Cheung, Paul Pointon, and Mark Gerchikov	AECOM
14:25-14:50	54	Review of Methods for Remote Detection and Imaging of Alpha Radiation	Krassimir Stoev	CNL
<b>BREAK</b>				
15:20-15:45	59	Designing a Characterization Plan for the Contaminated Liquid Waste Collection System at CNL	Gabrielle Psotka	CNL
15:45-16:10	17	Characterisation and Waste Management Solutions to Support Land Remediation	Helen Beddow, Winston Smith, and Gary Bethel	Nuvia
16:10-16:35	95	Review of Canadian Nuclear Facility Data (15 Years) Confirming the Significant Radioactive Waste Volume Reduction and Elimination of Associated Waste Disposal Costs via the Implementation of Customized, Site Specific Launderable RPPE Programs and the Application of Improved Monitoring and Decontamination Technologies	Kent Anderson	UniTech Services Group
16:35-17:00	122	Treatment of Large Contaminated Components and Scrap Metal Aiming for Recycling of the Free Released Material	Arne Larsson, Gregor Krause, and Dave Saul	Cyclife Sweden, Cyclife UK

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## NWMDER-2019 Technical-Session Schedule for Tuesday September 10, 2019 (as of September 3, 2019)

Time	ID	Title	Author(s)	Affiliation(s)
<b>13:30-17:30</b>				
<b>Session T1: Indigenous Participation in the Nuclear Industry and Stakeholder Engagement (1)</b>				
<b>Room: Salon Cartier I</b>				
<b>Chairs: Jim Delaney (NRCAN) and Charlene Easton (NWMO)</b>				
13:35-14:00	107	Engaging with the Métis in Ontario	James Wagar	NWMO
14:00-14:25	108	Building Indigenous Partnerships	Joe Heil and Jack Falkins	NWMO
14:25-14:50	105	The Benefits and Challenges of the United States Department of Energy Approach to Consultation with Indian Tribes in the United States on Nuclear Issues	Richard Arnold, Francis (Chip) Cameron, Ron Johnson, and Heather Westra	Consolidated Group of Tribes and Organizations, Tribal Strategies LLC, Prairie Island Indian Community
<b>BREAK</b>				
15:20-15:45	31	Experience With Public Advisory Panels During Decommissioning of US Nuclear Power Plants	Ronald Bellamy	Camfil
15:45-16:10	101	Working Together to Explore Partnerships	Jo-Ann Facella, Paul Austin, Rachele Davenport, Norman Sandberg, and Mahrez Ben Belfadhel	NWMO
16:10-16:35	98	Working Together to Explore Partnership – The Community Perspective	Cheryl Fort and Norman Sandberg	Mayor, Township of Hornepayne, NWMO
16:35-17:00	50	When One Size Doesn't Fit All: Positioning Your Organization as the Primary Source of Information for the Community	Alex Mahabir and Shernette Muccuth Henry	CNL
<b>13:30-17:30</b>				
<b>Session T2: Decommissioning (1)</b>				
<b>Room: Salon Cartier II</b>				
<b>Chairs: Steve Plante (Hydro Quebec) and Karine Glenn (CNSC)</b>				
13:35-14:00	109	CANDU DWMPG - Decommissioning and Waste Management Peer Group Sharing the Experience Base	Andrew Drom and Jeff Weed	CNL, COG
14:00-14:25	126	Predictive Effects Assessment – Pickering Nuclear Generating Station	John DeWilde, Christine Adams, and Rina Parker	Golder Associates, OPG, EcoMetrix
14:25-14:50	48	Removal of Systems from a Former Thorium Fuel Reprocessing and Fuel Bay Water De-Ionization Facility	Mark McLaughlin	CNL
<b>BREAK</b>				
15:20-15:45	92	Decommissioning and Nuclear Waste Management Collaborative Research and Development with Canadian Universities	Vasile Bostan, Monica El-Behery, Irving Garnette, Alex Iliescu, Brian Malowany, Barb Noye, and Kirk Dias	OPG
15:45-16:10	63	Simplified Monitoring Methods for C-14 and H-3 Emissions at AECL Reactor Decommissioning Sites	Sikun (George) Xu, Joe Holstead, Katie Primeau	CNL
<b>13:30-17:30</b>				
<b>Session T3: Disposal Facilities for Long-term Management of Low Level Waste</b>				
<b>Room: Salon Albert</b>				
<b>Chairs: David Witzke (OPG) and Guy Hotte (Kinectrics)</b>				
13:35-14:00	117	Safety Classification of Structures Systems and Components in a Low Level Waste Disposal Facility	Guy Hotte and Rajamani Ponnann	Kinectrics, CNL
14:00-14:25	18	Safety Classification and Design Rules for Structures, Systems and Components in a Near Surface Disposal Facility - Pre Closure Phase	Amr El Aghoury and Mahmoud Karam	CNL
14:25-14:50	87	Design of Canadian Nuclear Waste Disposal Facility at Canadian Nuclear Laboratories in Chalk River	Rajamani Ponnann, Meggan Vickerd, Richard Birchall, and Lucy Pugh	CNL, AECOM
<b>BREAK</b>				

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15:20-15:45	16	Radioecological Risk Assessment in Support of the Near Surface Disposal Facility (NSDF) Project – Chalk River, Ontario	Nava Garisto, Helen Manolopoulos, Mo-Ki Tai, Ryan Kovacs, Jordan Gilbert, Michael Labriola, and Meggan Vickerd	Arcadis Canada, CNL
15:45-16:10	81	Select Sensitivity Cases for the NSDF Waste Facility	Nava Garisto, George Towler, Kate Thatcher, Jordan Gilbert, Ryan Kovacs, Meggan Vickerd, and Michael Labriola	Arcadis Canada, Quintessa, CNL
<b>Session T4: DGR Design, Engineering and Material Science (2)</b>				
<b>Room: Salon Cartier III</b>				
<b>Chairs: Paul Gierszewski (NWMO) and Mike Garamszeghy ((r) NWMO)</b>				
13:35-14:00	12	Optimization of Low Heat High Performance Concrete Mixes for DGR Shaft Sealing	Corina Aldea, Bruce Cornelius, and Helen Leung	Wood Environment & Infrastructure Solutions, NWMO
14:00-14:25	29	Development of Statistically-based Relationships Between Bentonite Density and Measured Swelling Pressure, Hydraulic Conductivity and Thermal Properties	David Dixon and Ken Birch	Golder Associates, NWMO
14:25-14:50	46	Sorption Properties of Radionuclides Under Saline Conditions	Tammy Yang, Peter Vilks, Shinya Nagasaki, Paul Bertetti, and Monique Hobbs	NWMO, CNL, McMaster Univ., Southwest Research Institute
<b>BREAK</b>				
15:20-15:45	82	Thermo-Hydro-Mechanical Modelling of NWMO Placement Room	Daniel Malmberg and Ken Birch	Clay Technology, NWMO
15:45-16:10	120	A “Far Down” Look at Fire Hazards in Deep Geologic Repositories	Ivan Bolliger and Dominic Esposito	JENSEN HUGHES
16:10-16:35	118	Lessons Learned from the 10 years of Enhanced Sealing Project (ESP) at the Former Canada’s Underground Research Laboratory (2008 to 2018)	Deni Priyanto, Johanna Hansen, Radwan Farhoud, and Ken Birch	CNL, Posiva Oy, Andra, NWMO
16:35-17:00	67	Surrogate-based Optimization for Spacing Parameters of The Canadian Deep Geological Repository	Shankai Lin and Kumaraswamy Ponnambalam	Univ. of Waterloo
<b>Session T5: Used Nuclear Fuel Management and Waste Transportation</b>				
<b>Room: Salon York</b>				
<b>Chairs: Tim Dalpee (Bruce Power) and Mark Gobien (NWMO)</b>				
13:35-14:00	25	Irradiated CANDU Fuel Bundle Endplate Characterization	Natalija Mirilovic	Kinectrics
14:00-14:25	26	CANDU Defective Fuel Encapsulation	Pierre Prévost, Alan Murchison, and David Morikawa	Hydro Quebec, NWMO, ATS Automation
14:25-14:50	83	The Impact of Used CANDU Fuel Exposure to 400°C Temperature during the Lid Closure Welding of the Used Fuel Container (UFC) for a DGR	Jose Freire-Canosa	NWMO
<b>BREAK</b>				
15:20-15:45	34	Dynamic Analysis of Dry Storage Container Transportation Package Under Accident Drop Condition	Lambert Li, Catherine Wang, and James Sato	OPG
15:45-16:10	130	Challenges in Waste Management of HEU Fuel and Radioactive Waste in SLOWPOKE-2 Decommissioning	Shahzad Alim, Olena Rysovana	SNC-Lavalin

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## NWMDER-2019 Technical-Session Schedule for Wednesday September 11, 2019 (as of September 3, 2019)

Time	ID	Title	Author(s)	Affiliation(s)
<b>08:00-12:00</b>				
<b>Session W1: Indigenous Participation in the Nuclear Industry and Stakeholder Engagement (2)</b> <b>Room: Salon Cartier I</b> <b>Chairs: Charlene Easton (NWMO) and Jim Delaney (NRCAN)</b>				
08:05-08:30	80	Advancing Reconciliation Through Canada's Plan to Manage Used Nuclear Fuel	Jessica Perritt	NWMO
08:30-08:55	73	Interweaving of Indigenous Knowledge With Western Ecological Science as an Example of Reconciliation	Melissa Mayhew and Allan Webster	NWMO
08:55-09:20	86	Participatory Planning in Baseline Monitoring Program Design	Joanne Jacyk	NWMO
<b>BREAK</b>				
09:50-10:15	113	Observations and Solutions When Physical Sciences & Social Sciences Intersect WRT the Nuclear Power Industry and Their Effect on Efforts to Reverse Climate Change	Glenn Sutton	Energy Initiatives Ontario
10:15-10:40	99	NWMO's Dialogue on Adaptive Phased Management (APM) Transportation Planning for Used Nuclear Fuel	Caitlin Burley and Jo-Ann Facella	NWMO
10:40-11:05	100	Engaging Youth in Nuclear Waste Management Organization's (NWMO) APM Project	Charlene Easton and John Kiely	NWMO
<b>08:00-12:00</b>				
<b>Session W2: Decommissioning (2)</b> <b>Room: Salon Cartier II</b> <b>Chairs: Karine Glenn (CNSC) and Steve Plante (Hydro Quebec)</b>				
08:05-08:30	19	CSA N294 Standard on Decommissioning of Facilities Containing Nuclear Substances	Mike Grey, Michael Stephens, Robert Reipas, and Deanna Mendolia	Kinectrics, CSA Group
08:30-08:55	129	Roadmap for Technology Development to Support CANDU Decommissioning and Long-term Waste Management Part 2 – Road Map Implementation	John Krasznai, Paul Dinner, Ian Castillo, and Najah Fajurally	COG, CNL, Kinectrics
08:55-09:20	14	First of a Kind In Situ Disposal (ISD) of the 20 MW Nuclear Power Demonstration (NPD) Reactor Presents Engineering Challenges	Ernest Aikens and Mike English	CNL
<b>BREAK</b>				
09:50-10:15	8	Environmental Impact Statement for the NPD Closure Project - Rolphton, Ontario	Sean McKee, Farrah Cooper, Phill Shantz, Stephanie Dryden-Cripton, Nava Garisto, Meggan Vickerd, Juliet Luiz, and Kristan Schruder	Arcadis Canada, CNL
10:15-10:40	11	Nuclear Power Demonstration Closure Project Postclosure Safety Assessment: Radiological and Chemical Aspects	Nava Garisto, James Penfold, Kate Thatcher, Kristan Schruder, Ryan Kovacs, John Avis, and Nicola Calder	Arcadis Canada, Quintessa, CNL, Geofirma
<b>08:00-12:00</b>				
<b>Session W3: DGR Siting and Safety Case</b> <b>Room: Salon Cartier III</b> <b>Chairs: Paul Gierszewski (NWMO) and Tom Calvert (NRCAN)</b>				
08:05-08:30	128	APM Site Selection Process Update - Canada's Plan for the Long-Term Management of Used Nuclear Fuel	Sarah Hirschorn, Alexander Blyth, Aaron DesRoches, Jo-Ann Facella, Monique Hobbs, Andy Parmenter, Jessica Perritt, Maria Sanchez-Rico Castejon, Eric Sykes, Martin Sykes, and Andre Vorauer	NWMO
08:30-08:55	94	Canadian Geoscience Research and Development in Support of Adaptive Phased Management: An Overview	Monique Hobbs, Alexander Blyth, Jianming Chen, Richard Crowe, Aaron DesRoches, Sarah Hirschorn, Hossein Kasani, Laura Kennell-Morrison, Tom Lam, Andy Parmenter, Andres Urrutia-Bustos, Erik Sykes, and Tammy Yang	NWMO

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08:55-09:20	110	Recent Advances in Long-Term Seismic Monitoring and Hazard Assessment in Northern Ontario	Nicholas Ackerley, Michal Kolaj, Veronika Peci, and John Adams	NRCan
<b>BREAK</b>				
09:50-10:15	38	Postclosure Safety Assessment of a Canadian Used Fuel Repository	Erik Kremer, John Avis, Jianming Chen, Paul Gierszewski, Mark Gobien, Ruiping Guo, and Chantal Medri	NWMO, Geofirma
10:15-10:40	39	Probabilistic Assessment of Postclosure Safety for a Canadian Used Fuel Repository in Sedimentary Rock	Mark Gobien and Ruiping Guo	NWMO
10:40-11:05	37	Potential Implications of Integrated Hydrologic Modelling on Postclosure Safety Assessment Studies	Jianming Chen	NWMO
11:05-11:30	65	Bayesian Network (BN) Approach for Failure Prediction of Deep Geological Nuclear Waste Repository	Ahmed El-Awady and Kumaraswamy Ponnambalam	Univ. of Waterloo
<b>8:00-12:00</b>				
<b>Session W4: Environmental Remediation</b>				
<b>Room: Salon Albert</b>				
<b>Chairs: David Witzke (OPG) and Shafi Andseta</b>				
08:05-08:30	24	H2020 Insider Project: Progress on Sampling Strategy and Implementation on Three Use Cases	Yvon Desnoyers, Sven Boden, Bart Rogiers, and Nadia Pérot	Geovariances, SCK•CEN, CEA
08:30-08:55	71	Determination of Thorium-230 by Inductively Coupled Plasma Mass Spectrometry	Jeff Zimmer and Stephanie Britton	SRC
08:55-09:20	56	Removal of Historic Low-level Radioactive Sediment From the Port Hope Harbour	Sam Diamond	CNL
<b>BREAK</b>				
09:50-10:15	102	Death by Sampling? Is There an Alternative?	Winston Smith and Helen Beddow	Nuvia
10:15-10:40	75	Managing Tritium Leak: Tyne Engineering Perspective	Peter Ozemoyah and John Robinson	Tyne Engineering
<b>08:00-12:00</b>				
<b>Session W5: Alternatives, Recycling and SMR Waste</b>				
<b>Room: Salon York</b>				
<b>Chairs: Mike Garamszeghy ((r) NWMO) and Peter Ottensmeyer (Univ. of Toronto)</b>				
08:05-08:30	91	Decommissioning Considerations in the IMSR400 Design Phase	Robert Ion, William Smith, and John Handbury	Terrestrial Energy
08:30-08:55	64	Characteristic Waste Streams From Small Modular Reactors Considered for Deployment in Canada	George Xu, Sarah Chester, Kwansik Choi, and Ephraim Bulemela	CNL
08:55-09:20	23	The SMR Challenge in Canada: Enriched Fuel; A Solution: Recycling of Used CANDU Fuel	Peter Ottensmeyer	Univ. of Toronto
09:20-09:45	43	Canada's Next Step: Recycling Spent U.S. Nuclear Fuel	Franki Race, Chad Erhardt, Brendan Megaw, Nicole Slusar, and Jason Donev	Univ. of Calgary

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