

22nd Annual Canadian Nuclear Society Conference and 26th Annual CNS/CNA Student Conference

Sunday June 10, a.m. & p.m.

STUDENT SESSION S1; Scott Room (09:00-12:00)
Co-Chairs: H. Bonin (Royal Military College of Canada)
and Wm. J. Garland (McMaster University)

**Student Conference Lunch;
Scott Room (12:00-13:00)**

STUDENT SESSION S2; Scott Room (13:00-15:00)
Co-Chairs: H. Bonin (Royal Military College of Canada)
and Wm. J. Garland (McMaster University)

**Conference Reception;
Mountbatten Ballroom (19:00-21:00)**

Monday June 11, a.m.

**Speakers' Breakfast & Delegates' Continental
Breakfast; Mountbatten Ballroom & Court
(07:30-08:30)**

**SESSION 1: Plenary I: Nuclear Power –
Current Status and Future Opportunities;
Churchill Ballroom (08:30-11:45)**
Co-Chairs: P. Spekkens (Ontario Power Generation) and
R. Van Adel (Atomic Energy of Canada Limited)

Monday June 11, p.m.

CNS Luncheon (12:00-14:00)
Guest Speaker: Jack Brons (Nuclear Energy Institute)

**SESSION 2A: Physics I;
Carlyle Room (14:00-17:00)**
Co-Chairs: M.A. Lone (Atomic Energy of Canada Limited)
and G. Marleau (École Polytechnique de Montréal)

**SESSION 2B: Thermalhydraulics I;
Scott Room (14:00-17:00)**
Co-Chairs: G. Hotte (Hydro-Québec) and W. Thompson
(Atlantic Nuclear Services Limited)

**SESSION 2C: Advanced and Research Reactors;
Wren Room (14:00-17:00)**
Co-Chairs: H. Bonin (Royal Military College of Canada)
and J. Hopwood (Atomic Energy of Canada Limited)

**SESSION 2D: Reactors and Operations I;
Rossetti A Room (14:00-17:00)**
Co-Chairs: P. Lafrenière (Atomic Energy of Canada Lim-
ited) and N. Popov (Atomic Energy of Canada Limited)

**SESSION 2E: Safety I;
Rossetti B & C Room (14:00-17:00)**
Co-Chairs: M. Gabbani (General Electric Canada) and
J.H.K. Lau (Atomic Energy of Canada Limited)

**CNS Annual General Meeting;
Scott Room (17:00)**

Tuesday June 12, a.m.

**Speakers' Breakfast & Delegates' Continental
Breakfast; Mountbatten Ballroom & Court
(07:30-08:30)**

**SESSION 3A: Physics II;
Carlyle Room (08:30-12:00)**
Co-Chairs: P. Akhtar (Canadian Nuclear Safety Commis-
sion) and J. Koclas (École Polytechnique de Montréal)

**SESSION 3B: Environment I;
Scott Room (08:30-12:00)**
Co-Chairs: To Be Announced

**SESSION 3C: Reactors and Operations II;
Wren Room (08:30-12:00)**
Co-Chairs: J.H.K. Lau (Atomic Energy of Canada Limited)
and To Be Announced

**SESSION 3D: Control Room;
Rossetti A Room (08:30-12:00)**
Co-Chairs: D. Gillard (Ontario Power Generation) and
To Be Announced

**SESSION 3E: Into the Future
Rossetti B & C Room (08:30-12:00)**
Co-Chairs: P.G. Boczar (Atomic Energy of Canada Limited)
and R. Steed (New Brunswick Power)

**CNA Annual General Meeting;
Baker Room (10:00-10:30)**
Open to all CNA members

CNA Board Meeting; Baker Room (10:30)
Restricted to CNA Board members

Tuesday June 12, p.m.

**SPECIAL EVENT – Young Generation Network's
2001 Mini Professional Development Seminar;
Wren Room (12:00-13:30)**

Leader and Guest Speaker: M. McIntyre (Director, North
American Young Generation in Nuclear),
Guest Speakers: Fred Boyd (Editor, Canadian Nuclear
Society Bulletin) and Paul Lafrenière (General Manager,
Facilities & Nuclear Operations, Chalk River Laboratories)

**SESSION 4: Plenary II: Nuclear Industry Update–
New Directions and New Initiatives;
Churchill Ballroom (13:45-16:45)**
Co-Chairs: P. Koenderman (Babcock & Wilcox Canada)
and K.L. Smith (Unecan News)

**Conference Banquet;
Mountbatten Ballroom (18:30)**

Wednesday June 13, a.m.

**Speakers' Breakfast & Delegates' Continental
Breakfast; Mountbatten Ballroom & Court
(07:30-08:30)**

**SESSION 5A: Plenary IIIA: Maintaining Vital
Capability in the Canadian Nuclear Industry–
Challenges and Opportunities;
Churchill Ballroom (8:30-10:30)**
Co-Chairs: M. Mathur (Ontario Power Generation),
P. Tighe (CANDU Owners' Group)
The Session will include a Panel Discussion.

**SESSION 5B: Plenary IIIB: Looking to the Future;
Churchill Ballroom (10:55-11:45)**
Chair: R.B. Duffey (Atomic Energy of Canada Limited)

Wednesday June 13, p.m.

**CNS Awards Luncheon;
Mountbatten Ballroom (12:00-14:00)**

**SESSION 6A: Safety II;
Carlyle Room (14:00-17:00)**
Co-Chairs: J.C. Luxat (Ontario Power Generation) and
M. Tayal (Atomic Energy of Canada Limited)

**SESSION 6B: Plant Aging and Rehabilitation
Scott Room (14:00-17:00)**
Co-Chairs: R. Tapping (Atomic Energy of Canada Limited)
and P.D. Thompson (New Brunswick Power)

**SESSION 6C: Environment II
Wren Room (14:00-17:00)**
Co-Chairs: K. Johansen (Ontario Power Generation) and
To Be Announced

**SESSION 6D: Reactors and Operations III
Rossetti A Room (14:00-17:00)**
Co-Chairs: W.G. Schneider (Babcock & Wilcox Canada)
and O. Glöckler (Ontario Power Generation)

**SESSION 6E: Thermalhydraulics II
Rossetti B & C Room (14:00-17:00)**
Co-Chairs: P. Gulshani (Atomic Energy of Canada Limited)
and A. Aly (Canadian Nuclear Safety Commission)



Co-Chairs: *H. Bonin (Royal Military College of Canada, Collège militaire royal du Canada) and Wm. J. Garland (McMaster University)*

Foundation for a Visual Reactor Simulation Toolkit,

D. Gilbert (McMaster University) - Ph.D.; Supervisor: Dr. W.F.S. Poehlman and Dr. Wm. J. Garland

The Velocity Measurement by LDV at the Simulated Plate Fuel Assembly,

Ha Tae Sung (McMaster University) - Master's degree; Supervisor: Dr. Wm. J. Garland

Fusion, Orbiting and Decay in 24Mg +12C at 45A MeV; Fusion, roulement et désexcitation dans la réaction 24Mg +12C à 45A MeV, F. Grenier (Université Laval) - Master's degree, M. Samri

(Université Ibn Tofail, Maroc), L. Beaulieu (Hôtel-Dieu, Québec), L. Gingras, Z.-Y. He, Y. Larochelle, R. Roy, and C. St-Pierre (Université Laval), G.C. Ball (TRIUMF) and D. Horn; Supervisor: Dr. R. Roy

Fonctions de corrélations dans les réactions nucléaires aux énergies intermédiaires; Correlation Functions in Nuclear Reactions at Intermediate Energy, Dany Thériault (Université Laval)- Master's

degree; L. Gingras, Z.-Y. He, Y. Larochelle, and R. Roy (Université Laval), collaboration INDRA; Supervisor: Dr. R. Roy

Effet du terme de symétrie lors d'une collision d'ions lourds aux énergies intermédiaires, S. Turbide

(Université Laval) - Master's degree and le groupe des ions lourds de l'Université Laval; Supervisor: Dr. R. Roy

The Scalloping Phenomenon and its Significance in Flow-Assisted-Corrosion,

B. Villien (New Brunswick University) - Master's degree; Supervisors: Dr. Y. Zheng and Dr. D.H. Lister

Slowpoke Integrated Reactor Control and Instrumentation System (SIRCIS),

L.R. Cosby (Royal Military College of Canada / Collège militaire royal du Canada) - M. Eng.; Supervisor: Dr. L.G.I. Bennett

Co-Chairs: *H. Bonin (Royal Military College of Canada, Collège militaire royal du Canada) and Wm. J. Garland (McMaster University)*

Measurement of Cosmic Radiation Exposure to Canadian Forces Aircrew,

B.M. Ellaschuk (Royal Military College of Canada / Collège militaire royal du Canada) - M. Eng.;
Supervisors: Dr. L.G.I. Bennett and Dr. B.J. Lewis

Environmental Impact of the CANDU Fuel Cycle,

C. Fawcett (Royal Military College of Canada / Collège militaire royal du Canada) - M. Eng.;
Supervisors: Dr. H.W. Bonin and Dr. K.A.M. Creber

Effet des radiations gamma, des électrons et des neutrons sur la nitrocellulose,

K.M. Heppell-Masys (Royal Military College of Canada / Collège militaire royal du Canada) - M. Eng.;
Supervisors: Dr. H.W. Bonin and Dr. V.T. Bui

The Design of an Irradiation Facility for the Destruction of Spent Nitrocellulose Plastic Explosives,

J.O.A. Kim, M. L'Italien, P. Nault and C. Prehotko (Royal Military College of Canada / Collège militaire royal du Canada) - B. Eng. (Chemical & Materials Engineering); *Supervisors: Dr. H.W. Bonin and Dr. V.T. Bui*

High Polymer-Based Composite Containers for the Disposal / Storage of High Radioactive Waste,

I. Miedema (Royal Military College of Canada / Collège militaire royal du Canada) - M. Eng.;
Supervisors: Dr. H.W. Bonin and Dr. V.T. Bui

Can Risk Communication Provide Assistance in Nuclear Energy Disputes?

E. Meadd (York University) – Ph.D.; Supervisor: Dr. P. Wilkinson

SESSION 1: Plenary I: Nuclear Power Current Status and Future Opportunities

Co-Chairs: P. Spekkens (Ontario Power Generation) and R. Van Adel (Atomic Energy of Canada Limited)

*Welcoming Address by K.L. Smith (Canadian Nuclear Society, Société Nucléaire Canadienne)
and P. Spekkens (Ontario Power Generation)*

Charting AECL's Future at Home and Abroad,
G. Kugler (Atomic Energy of Canada Limited)

Perspective of the Newest Nuclear Plant Operator in Canada - Bruce Power,
D. Hawthorne (Bruce Power)

Gentilly 2 Refurbishment Pre-Project,
M. Ross and R. Pageau (Hydro-Québec)

Possible Refurbishment of Point Lepreau,
*R.M. White and S.H. Groom (New Brunswick Power),
J.M. Barclay and P.J. Allen (Atomic Energy of Canada Limited),
P. D. Thompson (New Brunswick Power)*

Emerging Directions in Regulation,
L.J. Keen (Canadian Nuclear Safety Commission)

Current Status and Future Direction for Nuclear at Ontario Power Generation,
G. Preston (Ontario Power Generation)

SESSION 2A: Physics I

Co-Chairs: M.A. Lone (Atomic Energy of Canada Limited) and G. Marleau (École Polytechnique de Montréal)

Development of the CANDU 66-Group SN Transport Library,

K.T. Tsang (Atomic Energy of Canada Limited)

Uncertainty in the Burnup to Lanthanum–Concentration Ratio for CANDU Fuel,

R.E. Donders (Atomic Energy of Canada Limited)

Calculation of Power Distributions for Experimental Bundles in the NRU Loops,

M.D. Atfield (Atomic Energy of Canada Limited)

A Methodology for Estimating Error in the Computed Maximum Fuel Bundle Power,

*P. Sermer (Ontario Power Generation), F.M. Hoppe (McMaster University),
and C.G. Olive (Ontario Power Generation)*

Fuel Temperature Reactivity Coefficient of a CANDU Lattice–Numerical

Benchmark of WIMS-AECL (2-5d) Against MCNP, *M.A. Lone (Atomic Energy of Canada Limited)*

High Temperature Physics Experiments Using UO₂ and Simulated Irradiated CANDU-Type Fuel

in the ZED-2 Reactor, *M.B. Zeller, A. Celli, R.S. Davis, S.R. Douglas, R.T. Jones, and G.P. McPhee*
(Atomic Energy of Canada Limited)

SESSION 2B: Thermalhydraulics I

Co-Chairs: G. Hottel (Hydro-Québec) and W. Thompson (Atlantic Nuclear Services Limited)

Experimental Characterization of a Turbulent Round Jet in Support of Validating the CFD Code MODTURC_CLAS, *H.F. Khartabil (Atomic Energy of Canada Limited), D. Novog and J. Szymanski (Ontario Power Generation)*

A Statistical Estimator for the Boiler Power and Its Related Parameters, *H. Tang (New Brunswick Power)*

Review and Assessment of Heavy Water Transport Properties for Accident Analysis at High Temperature Conditions, *J.C. Luxat (Ontario Power Generation)*

Darlington Primary Heat Transport System Hot Waterhammer Analysis: Lessons Learned, *E. Zaltsgendler, P.T. Wan, W.S. Liu, S. Ho, D. Cheng and R.K. Leung (Ontario Power Generation)*

Fuel Cooling Analysis in Support of Operating the Universal Delivery Machine for Channel Inspection and Maintenance in Planned Outages at Bruce B, *Q.M. Lej, R.T. Murdock, M. Tabatabai, A. Tahir, K.K. Fung, M.H. Bayoumi, D. Austman, K.E. Locke and M.B. Furniss (Ontario Power Generation)*

SESSION 2C: Advanced and Research Reactors

Co-Chairs: H. Bonin (Royal Military College of Canada) and J. Hopwood (Atomic Energy of Canada Limited)

Development and Field Application of a Leak Sealant for the NRU Water Reflector,
M. Poringa (Atomic Energy of Canada Limited)

The Next Generation CANDU Evolution in Safety,
D.J. Wren and F.J. Doria (Atomic Energy of Canada Limited)

Reactor Physics of NG CANDU,
P.S.W. Chan, K.T. Tsang and D.B. Buss (Atomic Energy of Canada Limited)

Next Generation CANDU Heat Transport System Parameter Assessment,
K.F. Hau, J.W. Love, M. Vadera and J. Vecchiarrelli (Atomic Energy of Canada Limited)

Nuclear Power: Obstacles and Solutions,
R.S. Hart (R.S. Hart & Associates)

The Modular Helium Reactor and A Review of Applications with a Focus on The Tar Sands,
A.S. Shenoy (General Atomics) and R.S. Hart (R.S. Hart & Associates)

SESSION 2D: Reactors and Operations I

Co-Chairs: P. Lafrenière (Atomic Energy of Canada Limited) and N. Popov (Atomic Energy of Canada Limited)

COG's Role in Operational Excellence in the New Millennium,
C. Guiry (CANDU Owners' Group)

Improving Fire Protection in Ontario Power Generation Nuclear Power Plants,
F.K. Fitzsimmons (Ontario Power Generation)

Implementation of Reliability Centred Maintenance into Current CANDU 6 Plant Programs,
*R. Dam, J.H. Nickerson, and J. Hopkins (Atomic Energy of Canada Limited),
A.L.DeLong (New Brunswick Power)*

Configuration Control During Maintenance of Safety Related Equipment,
C.S. Irish (Nuclear Logistics, Inc.)

Safeguards Spent-Fuel Bundle Counter for CANDU 6 Reactors,
K.M. Aydogdu (Atomic Energy of Canada Limited)

Corrosion of the Tube Tubesheet Crevices in the Presence of Impurities and Deposits,
*D. Lucan , I. Pirvan, M. Fulger, and C. Anghel (Institute for Nuclear Research),
Ghe. Jinescu (University Polytechnic Bucharest)*

SESSION 2E: Safety I

Co-Chairs: M. Gabbani (General Electric Canada) and J.H.K. Lau (Atomic Energy of Canada Limited)

Prototype Application of Best Estimate and Uncertainty Safety Analysis Methodology to Large LOCA Analysis, *J.C. Luxat and R.G. Huget (Ontario Power Generation)*

Assessment of Effects of Pressure Tube to Calandria Tube Contact Caused by Relocated Garter Springs on Safety Analysis Results, *Q.M. Lei and M.H. Bayoumi (Ontario Power Generation)*

Coolant Void Reactivity Transient in a Gentilly-2 Loss of Flow Event, *A. Baudouin (Hydro-Québec), K. Jooper (ENAQ), T. Sissaoui and H. Chow (Atomic Energy of Canada Limited), G. Hotte (Hydro-Québec)*

Application of Best Estimate and Uncertainty Safety Analysis Methodology to Loss of Flow Events at Ontario Power Generation's Darlington Nuclear Generating Station, *R.G. Huget (Ontario Power Generation) and D.K. Lau (Candesco Research Corporation)*

Demonstration of Fuel Channel Integrity in Case of Reverse Flow Bundle Impact during Fuelling or Defuelling with Flow, *Q.M. Lei, N.N. Wahba and M.H. Bayoumi (Ontario Power Generation)*

Bruce NGS B Core Conversion – Endshield Response to Impact Velocity due to Reverse Flow Resulting from Large LOCA, *N.N. Wahba and M.H. Bayoumi (Ontario Power Generation)*

SESSION 3A: Physics II

Co-Chairs: P. Akhtar (Canadian Nuclear Safety Commission) and J. Koclas (École Polytechnique de Montréal)

Validation of RFSP-IST Code Against Power-Reactor Measurements,

*M. Ovanes, D.A. Jenkins, F. Ardeshiri, A.C. Mao, M. Shad, T. Sissaoui, H.C. Chow
(Atomic Energy of Canada Limited)*

Validation of DRAGON End-Flux Peaking and Analysis of End-Power-Peaking Factors for 37-Element, CANFLEX and Next-Generation CANDU Fuels, *W. Shen (Atomic Energy of Canada Limited)*

Generalized Perturbation Theory in DRAGON: Application to CANDU Cell Calculations,

T. Courau and G. Marleau (École Polytechnique de Montréal)

Sensitivity Studies for the Modeling of Core Reactivity Devices and Structures,

*C.G. Olive (Ontario Power Generation), F.M. Hoppe (McMaster University) and
P. Sermer (Ontario Power Generation)*

Delayed Photo-Neutron Yields in D2O from Fission in 235U, 238U, 239Pu, 240Pu and 241Pu,

M.A. Lone (Atomic Energy of Canada Limited)

Recommended Delayed Photo-Neutron Data for Use in CANDU Reactor Transient Analysis,

R.T. Jones (Atomic Energy of Canada Limited)

Parallel Coupling of Thermal-Hydraulics and Reactor Physics for Applications in a CANDU-6,

B. Dionne, J. Koclas and A. Teyssedou (École Polytechnique de Montréal)

SESSION 3B: Environment I

Co-Chairs: K. Dormuth (Atomic Energy of Canada Limited) and To Be Announced

The Five Year Review of the Canadian Environmental Assessment Act,

J. Clarke (Canadian Environmental Assessment Agency)

Hydrogen Production, Nuclear Energy and Climate Change,

R.B. Duffey and T.G. Poehnell (Atomic Energy of Canada Limited)

Scientific Issues Around the Priority Substance Assessment of Radionuclides from Nuclear Facilities, *D. Hart, P. McKee and D. Lush (Beak International Inc.)*

Use of Self-Powered Detectors for Near-Containment Gamma Monitoring,

J. Kemp and M. LaFontaine (IST Canada), H. Sharma (University of Waterloo)

ALARA Initiatives in Support of the Pickering-A Return to Service,

A. Khan (Ontario Power Generation)

Development of a Real-Time Neutron & Gamma Dosimeter,

R. Aryaeinejad (Idaho National Engineering & Environmental Lab.) and M. LaFontaine (IST Canada)

SESSION 3C: Reactors and Operations II

Co-Chairs: To Be Announced

NDE Inspection Qualification – an OPG Perspective,

J.A. Baron, B. Bevins, T. Harasym and N. van den Brekel (Ontario Power Generation)

Evolution of Bruce B Digital Control Computer Software Quality Assurance,

P.J. Gribbons and A. Kozak (Ontario Power Generation)

Testing the Dynamics of Shutdown Systems and Their Instrumentation in Reactor Trip Measurements, O. Glöckler(Ontario Power Generation)

An Approach to Infer the Moderator Temperature of a CANDU Reactor from Measurements Inside a Vertical Flux Detector, M. An and W. Thompson (Atlantic Nuclear Services Ltd.)

and R. Gibb (New Brunswick Power)

A Proposed Method for Assessing In-Core Flux Detector Dynamic Compensation Adequacy Over a Range of Trip Times, C.M. Bailey (CANTECH Associates), M. Nguyen (Hydro-Québec)

and B. Sur (Atomic Energy of Canada Limited)

SESSION 3D: Control Room

Co-Chairs: D. Gillard (Ontario Power Generation) and To Be Announced

Regulatory Perspectives on Human Factors Validation,

F. Harrison and L. Staples (Canadian Nuclear Safety Commission)

Human Factors Engineering in Nuclear Plant Rehabilitations,

K. Bernston, M. Remisz and S. Malcolm (Atomic Energy of Canada Limited)

Lessons Learned in Applying Function Analysis,

*G.R. Mitchel (Atomic Energy of Canada Limited), E. Davey (Crew Systems Solutions)
and R. Basso (Atomic Energy of Canada Limited)*

Operator Error and Psychological Error Mechanisms,

*B.K. Patterson (Human Factors Practical Inc.), M. Bradley (University of New Brunswick) and
D. Packer (Biron Engineering International Ltd.)*

Realizing the Benefits of Improved Plant Monitoring in DCC Upgrade Applications,

K.L. Stephens ((Atomic Energy of Canada Limited)

Updated Requirements for Control Room Annunciation - An Operations Perspective,

E. Davey (Crew Systems Solutions) and L. Lane (Ontario Power Generation)

A Strategy for the Phased Replacement of CANDU Digital Control Computers,

G.A. Hepburn (Atomic Energy of Canada Limited)

SESSION 3E: Into the Future

Co-Chairs: P.G. Boczar (Atomic Energy of Canada Limited) and R. Steed (New Brunswick Power)

Protecting the Principles During Progress,

W.K.G. Palmer (Bruce Power)

The Balanced Scorecard Advantage – Driving Strategic Change into Canada’s Nuclear Laboratory Site Operations,

P. Lafrenière (Atomic Energy of Canada Limited) and D. Weeks (Haggarty’s Cove Ventures(2001 Ltd.)

Why Are We So Afraid of Nuclear Radiation? J.M. Cuttler (Cuttler & Associates Inc.)

Future Prospects for Development of Nuclear Power: Good or Bad?

J.V. Jovanovich (University of Manitoba)

Research and Development and Related Capabilities for Safety and Licensing of Nuclear Power Reactors: A Regulatory Perspective,

D.B. Newland (Canadian Nuclear Safety Commission)

Nuclear Education and Training in the Internet Age, G. Bereznai (Atomic Energy of Canada Limited, Chulalongkorn University, Thailand) and Wm. J. Garland (McMaster University)

Measurement of Radiation Dose to Ovaries From CT of the Head and Trunk,

M.A.M. Al-Habdhan and A.R. Kinsara (King Abdul Aziz University, Saudi Arabia)

SESSION 4: Plenary II: Nuclear Industry Update – New Directions and New Initiatives

Co-Chairs: P. Koenderman (Babcock & Wilcox Canada) and K.L. Smith (Unecan News)

CANDU Technology: Benefits and Perspectives in Romania,

I. Rotaru and I.C. Bilegan (Nuclearelectrica)

China's 300 MWe NPP and Shanghai Nuclear Engineering Research & Design Institute,

Prof. Cai Jianping (Shanghai Nuclear Engineering Research and Design Institute)

McArthur River Mine Production Update,

M. Quick (Cameco)

Government Policy Developments,

D. Whelan (Natural Resources Canada)

Nuclear Waste Management,

K. Nash (Ontario Power Generation)

Update on CNA Activities,

W. Clarke (Canadian Nuclear Association)

SESSION 5A: Plenary IIIA: Maintaining Vital Capability in the Canadian Nuclear Industry - Challenges and Opportunities

Co-Chairs: M. Mathur (Ontario Power Generation), P. Tighe (CANDU Owners' Group)

Maintaining Vital Capability in the Canadian Nuclear Industry – Challenges and Opportunities for Ontario Power Generation,

P. Charlebois (Ontario Power Generation)

Education and Training - Back to Basics,

D. Meneley (Atomic Energy of Canada Limited)

Maintaining Vital Capability in the Canadian Nuclear Industry – Challenges and Opportunities – Regulator's Perspective,

P. Wigfull (Canadian Nuclear Safety Commission)

The Role of the Universities and CANTEACH in Succession Planning,

Wm. J. Garland (McMaster University)

Union Perspective,

R. Menard (Power Workers' Union)

SESSION 5B: Plenary IIIB: Looking to the Future

Chair: R.B. Duffey (Atomic Energy of Canada Limited)

The Next Generation of CANDU: Reactor Design to Meet Future Energy Markets,
J.M. Hopwood, J.W. Love and D.J. Wren (Atomic Energy of Canada Limited)

Update on Iter,
P. Barnard (Iter Canada)

SESSION 6A: Safety II

Co-Chairs: J.C. Luxat (Ontario Power Generation) and M. Tayal (Atomic Energy of Canada Limited)

A Risk-Informed Process for Managing Nuclear Safety Issues and Periodic Safety Report Revisions, *W. Bowman, R. Chun, K. Dinnie, E. Panyan, D.G.Parkinson, D. Rennick and C. Slongo (Ontario Power Generation)*

Bruce B Risk Assessment (BBRA) Peer Review Process,
S. Kaasalainen, W.P.Crocker and W.A. Webb (Ontario Power Generation)

Reducing the Cost of Probabilistic Risk Assessment Modeling by Taking Advantage of the Advances in Information Technologies, *R. Greszczuk (Ontario Power Generation)*

The Use of CASE Tools in OPG Safety Analysis Code Qualification,
J. Pascoe and A. Cheung (OPG), C. Westbye (Geodesic Consulting)

MAAP4-CANDU V4.04A, A Computer Code for Severe Accidents in CANDU Nuclear Generating Stations, *M.T. Kwee, F.I. Iglesias and S.G. Lie (Ontario Power Generation)*

LOCA Power Pulse Evaluation for CANFLEX-NU Core,
M.Y. Ohn, C.J. Bae, J.H. Choi, H.R. Hwang and J.T. Seo

SESSION 6B: Plant Aging and Rehabilitation

Co-Chairs: R. Tapping (Atomic Energy of Canada Limited) and P.D. Thompson (New Brunswick Power)

Experiments on Feeder Thinning and Their Implications for CANDU Reactors,

*D.H. Lister (University of New Brunswick), F.R. Steward (Center for Nuclear Energy Research),
W. Cook (University of New Brunswick) and J. Slade (New Brunswick Power)*

Measurement of Oxide Loadings Within Steam Generator Tubes at CANDU Nuclear Stations,

J. Krasznai and A. Husain (Kinectrics Inc.)

Gentilly-2 Steam Generator Primary Side Cleaning by SIVABLAST,

S. Plante (Hydro-Québec)

Point Lepreau Refurbishment: Plant Condition Assessment,

*P.J. Allen, M.R. Souldard and F. David (Atomic Energy of Canada Limited), G. Clefton
(Canadian Nuclear Utility Services) and R. Weeks (New Brunswick Power)*

Major Refurbishment of Fibreglass Reinforced Plastic Components in the Vacuum Building at Pickering Nuclear Generating Station,

E. Marczak, L. Clarke, J. Glover and W. Allen (Ontario Power Generation)

SESSION 6C: Environment II

Co-Chairs: K. Johansen (Ontario Power Generation) and To Be Announced

Tritium in Heat Transport and Moderator Systems of CANDU Reactors,

*D.C. Taylor (Atomic Energy of Canada Limited; now with New Brunswick Power)
and C.R. Boss (Atomic Energy of Canada Limited)*

Methodology For and Uses of a Radiological Source Term Assessment for Potential Impacts to Stormwater and Groundwater,

*A. Teare and K. Hansen (CH2M HILL Canada Ltd.),
J. DeWilde, L. Yu (Ontario Power Generation) and D. Killey (Atomic Energy of Canada Limited)*

Pickering Nuclear Site Wide Groundwater Monitoring System,

*J. DeWilde, D. Chin-Cheong and C. Lledo (Ontario Power Generation),
R. Wootton, D. Belanger and K. Hansen (CH2M HILL Canada Ltd.)*

Tritium in Groundwater Investigation at the Pickering Nuclear Generating Station,

*J. DeWilde, L. Yu (Ontario Power Generation), D. Belanger, R. Wootton, K. Hansen,
E. McGurk and A. Teare (CH2M HILL Canada Ltd.)*

A Study of Wet Deposition of Atmospheric Tritium Releases at the Ontario Power Generation, Pickering Nuclear Generating Station,

*G. Crooks (Jacques Whitford Environment Ltd.),
J. DeWilde and L. Yu (Ontario Power Generation)*

The Development and Experience of Tritium Removal Respirator at Wolsong

Nuclear Power Plants, *W.S. Kim and H.G. Kim (Korea Electric Power Research Institute, Korea)*

SESSION 6D: Reactors and Operations III

Co-Chairs: W.G. Schneider (Babcock & Wilcox Canada) and O. Glöckler (Ontario Power Generation)

The Simulation of the Hot Boiler Chemical Clean (Siemens Process) in Pickering NGS 'B',

C.M. Lorencez, C.L. Choy and R. Pijahn (Ontario Power Generation)

Polymeric Radioactive Waste Disposal Containers – An Investigation into the Application of Polymers Vice Metals to House Low and Intermediate Level Radioactive Waste,

M.W. Walker, H.W. Bonin and V.T. Bui (Royal Military College of Canada)

Development of a Screening Technique to Identify Pressure Tube Susceptibility to D Ingress,

M. Maguire (Atomic Energy of Canada Limited)

Service Life for Safety System Charcoal,

K.R. Weaver (Ontario Power Generation) and J.C. Wren (Atomic Energy of Canada Limited)

Operation Personnel Training at Cernavoda NPP – Romania,

M. Balan (Nuclearelectrica, Romania)

SESSION 6E: Thermalhydraulics II

Co-Chairs: P. Gulshani (Atomic Energy of Canada Limited) and A. Aly (Canadian Nuclear Safety Commission)

Post-LOCA Vibration Analysis in CANDU Primary Heat Transport Systems,

T. Stevens (Ontario Power Generation)

Channel Outlet Temperature Excursions During the Bruce Unit 1 SLAR Outage (1997),

K.E. Locke and M.B. Furniss (Bruce Power Inc.)

Mechanism of High Temperature Excursions at High Inventory in RD-14M Two-Phase Natural Circulation Experiments,

P.T. Wan, S. Zbroja, R.K. Leung and R.Y. Chu (Ontario Power Generation)

OPG's Approach of Crediting Natural Circulation in Outage Heat Sinks,

K.K. Fung and J.C. Mackinnon (Ontario Power Generation)

A Mechanistic Model to Predict ΔP_{HH} Under Two-Phase Natural Circulation Flow and Comparison Against Experimental Results in RD-14M,

P. Soedijono, S. Osamusali, A. Tahir and P. Wan (Ontario Power Generation)