Workshop on Safety and Integrity Management of Operations in Harsh Environments

March 19-20, 2013
St. John’s, NL, Canada

Steering Committee

Scott Crosbie
Nalcor Energy

John Dolny
ABS

Svein Inge Eide
Statoil

Dave Finn
PRNL

Shawn Kenny
Memorial University

Faisal Khan
Memorial University

Leonard Lye
Memorial University

Mike Maguire
Husky Energy

Steve Mercer
RDC

Guy Moores
Labrador Iron Mines

Greg Naterer
Memorial University

Mike Paulin
Intecsea

Charles Randell
C-Core

Don Stevens
Vale Newfoundland

Sponsored by:
The Environment...
Operations in harsh conditions have become a necessity as we are pushed more and more into difficult environments. Oil & gas, mining, utility, construction and shipping companies need to know how their operations can safely progress in these challenging conditions.

The Challenges...
Freezing temperatures, extreme winds, corrosive sea spray and remoteness of operations are some of the challenges that need to be addressed to allow advancement into these locations. Solutions need to be evaluated for the impact on both humans and assets to safely implement change and capitalize on these new opportunities.

The Workshop...
This workshop will bring together industry experts and researchers to share knowledge and experience, and to identify and establish new collaborative research opportunities relevant to the Arctic and other harsh environments. The two-day workshop will focus on two important themes related to the management of natural resource development in harsh and frontier areas, namely Safety and Asset Integrity.

Our Goals...
This workshop will identify and prioritize the risks and challenges for operations and exploration in harsh environments, strategize a plan for solutions and disseminate knowledge and advances in harsh environment safety and asset integrity.
Day 1 Safety

Breakfast Session
8:00 AM to 10:00 AM

Welcome breakfast with opening remarks by Memorial University President Dr. Gary Kachanoski on Safety and Asset Integrity issues in harsh environments followed by a keynote address by Ken Dyer, Vice President, Husky Energy.

Morning Technical Sessions
10:15 AM to 12:30 PM

Each session will include two 35 minute presentations, followed by a 60 minute panel discussion.

Session 1:
Process and occupational safety in harsh environments
Paul Amyotte, Department of Chemical Engineering, Dalhousie University
“Best practices in process safety.”
and
Daryl Attwood, Lloyd’s
“Challenges in maintaining safety in harsh environments.”

Session 2:
Risk assessment and management with scarce information
Thormod Hope, Statoil Canada Ltd
“What we do not know about remote operations.”

and
Robert Harris, ExxonMobil
“Are traditional risk assessment methods applicable to harsh conditions?”

and
David Riffe, Nalcor Energy
“Lessons learned tackling unique safety and risk related challenges”

Lunch Session
12:30 PM to 2:00 PM

Plenary lecture by Richard Kennedy, Manager TRO Labrador, Nalcor Energy addressing safety in harsh and remote environments.

Afternoon Technical Sessions
2:15 PM to 4:30 PM

Each session will include two 35 minute presentations, followed by a 60 minute panel discussion.

Session 3:
Winterization
John Stubbs, Fednav
“Optimum winterization.”

and
Rob McNamara, Husky Energy
“Why, when and where about winterization.”

Session 4:
Human factors engineering in harsh environments
Scott MacKinnon, School of Human Kinetics, Memorial University
“Human behavior in extreme conditions.”

and
Kevin McSweeney, ABS
“Human factors engineering considerations for extreme environments”

Evening Reception
4:30 PM to 6:00 PM

A networking event to maximize the benefits of the workshop by facilitating enhanced communication among participants and fostering engagement between researchers and practitioners will be held.
# Day 1 Safety Panelists

## Morning Technical Sessions

### Session 1:
**Process and occupational safety in harsh environments**

- **Paul Amyotte**  
  Dalhousie University
- **Daryl Attwood**  
  Lloyd’s
- **Genserik Reniers**  
  University of Antwerp
- **Sirish Shah**  
  University of Alberta

### Session 2:
**Risk assessment and management with scarce information**

- **Thormod Hope**  
  Statoil Canada Ltd
- **Robert Harris**  
  ExxonMobil
- **David Riffe**  
  Nalcor Energy
- **Arshad Ahmad**  
  Universiti Teknologi Malaysia

## Afternoon Technical Sessions

### Session 3:
**Winterization**

- **John Stubbs**  
  Fednav
- **Rob McNamara**  
  Husky Energy
- **Dan Oldford**  
  ABS
- **Leonard Lye**  
  Memorial University

### Session 4:
**Human factors engineering in harsh environments**

- **Scott MacKinnon**  
  Memorial University
- **Kevin McSweeney**  
  ABS
- **Paul Amyotte**  
  Dalhousie University
- **Howard Pike**  
  CNLOPB
Day 2 Asset Integrity

Breakfast Session
8:00 AM to 10:00 AM

Breakfast with opening remarks by Howard Pike, Manager, Operations, CNLOPB on Asset Integrity issues in harsh environments followed by a keynote address by James Bond, Director of Corporate Shared Technology for the American Bureau of Shipping.

Morning Technical Sessions
10:15 AM to 12:30 PM

Session 5:
Asset integrity in harsh environments
Faisal Khan, Memorial University
“Challenges in maintaining asset integrity in harsh environment.”
and
Neil Martin, Husky Energy
“Best practices in asset management in harsh environments.”

Session 6:
Reliability modeling in harsh environments
Peter Langlois, Vale
“Design and operational considerations for reliable systems in harsh environments.”
and
Mohammad Nabavian, Wood Group, WG-AIG
“Structural integrity management and extending life of offshore installations”

Lunch Session
12:30 PM to 2:00 PM

Plenary lecture by John Bresland, Former Chair of the US Chemical Safety Board, addressing “Lessons Learned (good and bad) from the Investigations of the U.S. Chemical Safety Board”.

Afternoon Technical Sessions
2:15 PM to 4:30 PM

Session 7:
Corrosion in harsh environments
Binder Singh, Technip
“Corrosion and Integrity Management under Harsh Environments”
and
Edward Jansen, ABS
“Coatings for corrosion protection in Harsh Environments.”

Session 8:
Condition monitoring in harsh environments
Graham Brown, SNC-Lavalin
“Monitoring remote operations.”
and
Jim Perry, Canship Ugland
“Practical experiences with harsh environments”

Each session will include two 35 minute presentations, followed by a 60 minute panel discussion.
Day 2 Asset Integrity Panelists

Morning Technical Sessions 11:30 AM to 12:30 PM

Session 5:
Asset integrity in harsh environments
Faisal Khan
Memorial University

Neil Martin
Husky Energy

David Riffe
Nalcor Energy

Mahmoud Haddara
Memorial University

Session 6:
Reliability modeling in harsh environments
Peter Langlois
Vale

Mohammad Nabavian
Wood Group, WG-AIG

Han Yu
ABS

Chandima Rathnayake
University of Stavanger, Norway

Afternoon Technical Sessions 3:30 PM to 4:30 PM

Session 7:
Corrosion in harsh environments
Binder Singh
Technip

Edward Jansen
ABS

Dave Bursey
Husky Energy

Susan Caines
Memorial University

Session 8:
Condition monitoring in harsh environments
Graham Brown
SNC-Lavalin

Jim Perry
Canship Ugland

Salim Ahmed
Memorial University

Premkumar Thodi
INTECSEA
Questions or Comments…

For questions or additional information, please contact:

**Faisal Khan**  
Professor and Vale Research Chair in Safety and Risk Engineering  
Faculty of Engineering & Applied Science, Memorial University,  
St John’s, NL, Canada  
Phone: 709 864 8939; Email: fikhan@mun.ca

Free Registration…

To register; please complete the below form and return to Salim Ahmed  
<sahmed@mun.ca> or fax to 709-864-8975

---

**Registration Form**

**Workshop on Safety and Integrity Management of Operations in Harsh Environment**

19-20th March 2013, Sheraton Hotel, St. John’s, NL,  
Seating is limited. Please register by **March 13, 2013**.  
There is no registration fee for this event.

---

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Title</td>
<td>E-mail</td>
</tr>
<tr>
<td>Company / Organization</td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>Province/State</td>
</tr>
</tbody>
</table>

Special Requests or Comments (Including Dietary Restrictions):

For planning purposes, please indicate the sessions you will attend  
☑ Day 1  
☐ Day 1: Evening Reception  
☐ Day 2

Please return the completed registration form by March 13, 2013 to Salim Ahmed  
<sahmed@mun.ca> or fax to 709-864-8975.