

# AGENDA

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## Day 2: Wednesday, February 3, 2016

**9:00 a.m. Announcements and Agenda Review**

*Andrew Szilagyj, DOE*

**9:10 a.m. Session 2: Practices, Lessons Learned and Challenges of Robot Deployment at Fukushima Daiichi**

*Co-Chairs: Shinji Kawatsuma, Japan Atomic Energy Agency (JAEA) and Takashi Hara, Tokyo Electric Power Company (TEPCO)*

**Presentation 1: Deployment of Robotics to Stabilize the Accident at Fukushima Daiichi NPS**

*Taichiro Arahata, TEPCO*

**Presentation 2: Challenges for Fuel Debris Retrieval using Robotic Technologies at Fukushima Daiichi NPS**

*Yuichi Kondo, TEPCO*

**Presentation 3: Startup of Naraha Remote Technology Development Center and Consideration of Deployed Robot Operation for New Standard Testing Method**

*Dr. Kuniaki Kawabata, JAEA*

**10:45 a.m. Break**

**11:00 a.m. Presentation 4: R&D on Robots for the Decommissioning of Fukushima Daiichi NPS**

*Kiyoshi Oikawa, International Research Institute for Nuclear Decommissioning (IRID)*

**11:30 a.m. Panel 2 Discussion:**

**Moderator:** *Shinji Kawatsuma, JAEA*

**Rapporteurs:** *Takashi Hara, TEPCO*

*Dr. Tetsuya Kimura, Nagaoka University of Technology*

**Panelists:** *Taichiro Arahata, TEPCO*

*Yuichi Kondo, TEPCO*

*Dr. Kuniaki Kawabata, JAEA*

*Kiyoshi Oikawa, IRID*

**Panel questions:**

1. What robotic applications have been developed and deployed to survey and assess challenging conditions within the damaged reactors and auxiliary support structures (e.g., Fukushima Daiichi)?

2. What lessons were learned in developing and applying these robotic technologies and what successes were achieved?
3. How were complex conditions and challenging environments negotiated by the adaptive robotic technologies?
4. How were cleanup objectives, including worker safety, met by using these robotic technologies?

**12:00 p.m. Lunch**

**1:00 p.m. Session 3: *Industry and Government Experiences in Applying Robotic Technologies to Existing Challenges***

*Co-Chairs: Rob Buckingham, UKAEA/RACE and Joan Knight, Exelon Generation*

**Presentation 1: Use of Robotics and Remote Monitoring Equipment for Reducing Dose and Risk Associated with Radiological Work at Ontario Power Generation**

*Joe Zic, Ontario Power Generation*

**Presentation 2: DOE National Laboratory Robotic System Applications for Nuclear Facilities Operations and Legacy Cleanup**

*Steven Tibrea, Savannah River National Laboratory*

**Presentation 3: Experience in Decommissioning of Nuclear Power Plants in Germany**

*Kenji Hara, Wälischmiller Engineering GmbH*

**2:30 p.m. Break**

**2:45 p.m. Presentation 4: Robotic Handling of Legacy Nuclear Waste: BEP**

*Stephen Shackleford, UK National Nuclear Laboratory*

**Presentation 5: The Use of Robotics at CANDU Power Plants**

*Jacqueline McGovern, Kinectrics Inc*

**Presentation 6: Use of Robotics for Dose Reduction and Efficiency Gains at U.S. Commercial Nuclear Facilities**

*Daren Cato, Duke Energy and Joan Knight, Exelon Generation*

**4:15 p.m. Panel 3 Discussion:**

**Moderators:** *Rob Buckingham, UKAEA-RACE and Joan Knight, Exelon Generation*

**Rapporteurs:** *Ian Gifford and Steven Wessels, U.S. NRC*

**Panelists:** *Joe Zic, Ontario Power Generation  
Steven Tibrea, Savannah River National Laboratory  
Kenji Hara, Wälischmiller Engineering GmbH  
Stephen Shackleford, UK National Nuclear Laboratory  
Jacqueline McGovern, Kinectrics Inc*

**Panel questions:**

1. What were the project drivers that enabled your project(s) to get started?
2. What were the key elements that lead to project success?
3. How did the different parties interact: (e.g. government, regulator, operator and supplier)?
4. In your view, how could we as a community be better prepared, more coherent and ultimately more efficient?

**5:30 p.m. Adjourn for the day**