



**Brazil - U.S.
Workshop on
Strengthening the Culture of
Nuclear Safety and Security**

**August 25-26, 2014
Ipen- CNEN/SP - São Paulo - SP**

Workshop coordinators: Antonio C. O. Barroso – IPEN and Robert A. Bari – U.S. NAS

August 25, 2014

8:30-9:00	Registration
9:00-9:30	Introductory Remarks by José Carlos Bressiani , IPEN – Nuclear and Energy Research Institute (IPEN), Robert Bari , U.S. National Academy of Sciences (NAS)
9:30-11:00	<p>Session I: <i>The relationship between safety culture and security culture from the perspective of: the synergy between them; the regulation to support both; and the (undesirable) side effects of new technology.</i> (Moderator: Ivan Salati de Almeida, CNEN – Brazilian Nuclear Energy Commission and rapporteur: Luiz Fernando Bloomfield Torres, CNEN)*</p> <p>-Why safety and security culture matter - Michael Corradini, University of Wisconsin and William Tobey, Harvard University (Corradini on safety and Tobey on security)</p> <p>-Safety and security culture from a regulatory perspective Claudio Almeida, CNEN</p> <p>Panel Discussion</p>
11:00-11:15	Coffee Break
11:15-12:45	<p>Session II: <i>Safety analysis, vulnerability assessment and the design of integrated solutions.</i> (Moderator: James Ellis, Stanford University, rapporteur: Benedito D. Baptista F., IPEN)</p> <p>-Evolution of nuclear safety and security culture in the U.S. and case study on discussion of the 2002 near accident at the Davis-Besse plant in the U.S. - Stephanie Morrow, US NRC</p> <p>-New socio-technical approaches for safety and vulnerability assessment - EMBRAER experience. Ricardo Santos, EMBRAER</p> <p>-Threats involving nuclear/radioactive materials: Nuclear Forensic Capability within a National Nuclear Security Infrastructure - Jorge E. Sarkis, IPEN</p> <p>Panel Discussion</p>
12:45-14:00	Lunch at IPEN
14:00-15:30	<p>Session III: <i>Performance assessment and improvement of safety and security culture: methodological and deployment issues, and how to get a virtuous cycle of the process to achieve safety and security culture and those related to other organizational goals.</i> (Moderator: Marcos A. Viana Tavares, EMBRAER, rapporteur: Micah Lowenthal, U.S. NAS)</p> <p>-Safety and security culture: carrot or stick? - Michael O'Brien, U.S. Lawrence Livermore National Laboratory (LLNL)</p> <p>-Assessment instruments for safety culture: what are we measuring? - Antonio C. O. Barroso, IPEN</p> <p>-The synergy between safety culture and operational excellence. Ivan de Souza Azevedo, Eletrobras Eletronuclear</p> <p>Panel Discussion</p>
15:30-15:45	Coffee Break
15:45-16:30	Recap of day one with session moderators and rapporteurs and preview of issues to be address on day two
16:30	Meeting adjourn for day

Transmissão pela internet: <http://videoconferencia.ipen.br/auditorio>

*Panelists are allotted 20 minutes each to address the main issues of the session topic and present his/her positions, concerns or satisfaction with the current status quo and recommend possible evolutions.



**Brazil - U.S.
Workshop on
Strengthening the Culture of
Nuclear Safety and Security**

August 25-26, 2014
Ipen- CNEN/SP - São Paulo - SP

Workshop coordinators: Antonio C. O. Barroso – IPEN and Robert A. Bari – U.S. NAS

August 26, 2014

- 9:00 - 10:30 Session IV: *Training and education for safety and security culture –training for culture as distinct from procedure.*
(Moderator: **Michael O'Brien**, U.S. LLNL, rapporteur: **Mario O. Menezes**, IPEN)
- Teaching safety and security culture -
Alan Hanson, Massachusetts Institute of Technology
 - Discussion of metrics for safety and security culture -
Robert Bari, U.S. Brookhaven National Laboratory
 - Beyond procedures: safety and security culture as a preparation for the unexpected
Filomena Ricco, DCTA/UNIFA – Air Force University
- Panel Discussion
- 10:30-10:45 Coffee Break
- 10:45-12:15 Session V: *Lessons learned processes and implementing change.*
(Moderator: **Leonam Guimarães**, Eletrobras Eletronuclear;
rapporteur : **Patrick Lynch**, U.S. ORNL)
- Lessons learned from vulnerability assessments for safety and security culture undertaken after Fukushima (and presentation on NAS Fukushima report)
Michael Corradini, University of Wisconsin.
 - Fukushima Response Plan by Eletronuclear: an overview
Paulo Cesar da Costa Carneiro, Eletrobras Eletronuclear
 - The 2012 perimeter security breach at the Y-12 national security complex and the DOE response - **Donald Alston**, Alston Strategic Consulting
- Panel Discussion
- 12:45-14:00 Lunch at IPEN
- 14:00-15:30 Session VI: *Influence of leadership and hierarchy on safety and security culture.*
(Moderator: **Donald Alston**, Alston Strategic Consulting,
rapporteur: **Benjamin Rusek**, U.S. NAS)
- How leadership (good and bad) within the nuclear industry affects safety and security culture - **James Ellis**, Stanford University
 - Insights on the role played by leadership and hierarchy in organizational culture
- **Luciano Pagano Jr.**, CTMSP - Brazilian Navy Technology Center In São Paulo
 - Cultural issues that influence safety and security culture, **Sonja Haber**, Human Performance Analysis Corporation
- Panel Discussion
- 15:30-15:45 Coffee Break
- 15:45-16:30 Recap of day two with session moderators and rapporteurs and discussion of next steps
- 15:45-16:30 Closing Remarks from **José Carlos Bressiani**, IPEN and **Robert Bari** US NAS and other representatives

Supporting:



Organisers:



Governo do Estado
de São Paulo



Ministério da Ciência,
Tecnologia e Inovação