

2013 ANS Winter Meeting and Nuclear Expo November 10-14, 2013 • Washington, DC • Omni Shoreham Hotel

“The 75th Anniversary of the Discovery of Nuclear Fission”

and EMBEDDED TOPICAL MEETINGS:

- Risk Management for Complex Socio-Technical Systems
- 2nd ANS SMR 2013 Conference
- Young Professionals Congress 2013
- Nuclear Nonproliferation – First Fission to the Future

Summary Deadline: June 14, 2013

CALL FOR PAPERS



CONFERENCE CHAIRS

General Chair

James Rogers, *Duke Energy*

Technical Program Chair

Linda Hansen, *Argonne National Laboratory*

Assistant Technical Program Chairs

James J. Byrne, *Byrne & Assoc. LLC*

Patrick J. Pinhero, *University of Missouri/Columbia*

Martin Sattison, *Idaho National Laboratory*

DEADLINES: NO EXCEPTIONS

SUBMISSION OF SUMMARIES:

April 1, 2013–June 14, 2013

AUTHOR NOTIFICATION OF ACCEPTANCE:

By July 23, 2013

REVISED SUMMARIES DUE:

August 12, 2013

FORMAT

Authors are now REQUIRED to use the ANS Template and “Guidelines for TRANSACTIONS Summary Preparation” provided on the ANS Web site. Summaries must be submitted electronically using Adobe Acrobat (PDF) files and original Microsoft Word documents and the ANS Electronic Paper Submission and Review System. Summaries not based on the ANS Template will be REJECTED.

GUIDELINES FOR SUMMARIES

Please submit summaries describing work that is NEW, SIGNIFICANT, and RELEVANT to the nuclear industry. ANS will publish all accepted summaries in the TRANSACTIONS. Papers are presented orally at the meeting, and presenters are expected to register for the meeting. Completed papers may be published elsewhere, but the summaries become the property of ANS. Under no circumstances should a summary or full paper be published in any other publication prior to presentation at the ANS meeting. It is the author’s responsibility to protect classified or proprietary information.

CONTENT

1. Introduction: State the purpose of the work.
2. Description of the actual work: Must be NEW and SIGNIFICANT.
3. Results: Discuss their significance.
4. References: If any, must be closely related published works. Minimize the number of references.
5. Do not present a bibliographical listing.

LENGTH

1. The minimum length is one full page.
2. The maximum length is four pages, including references, tables, and figures.
3. Limit title to ten words; limit listing authors to three or fewer if possible.

PAGE CHARGE

ANS charges \$100 per final printed page (prorated) in the TRANSACTIONS. Authors should be prepared to provide their purchase order numbers when submitting their summaries electronically.

REQUIRED TEMPLATE AND “GUIDELINES FOR TRANSACTIONS SUMMARY PREPARATION”:

www.ans.org/pubs/transactions

SUBMIT A SUMMARY:

www.ans.org/meetings

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2013 ANS Winter Meeting and Nuclear Expo

2013 Winter Meeting: Session Titles by Division

1. Accelerator Applications (AAD)

1a. Accelerator Applications: General

2. Aerospace Nuclear Science and Technology (ANSTD)

2a. Best of NETS 2013

2b. Aerospace Nuclear Science and Technology: General

3. Biology and Medicine (BMD)

3a. Advanced Prompt Gamma Activation Analysis and Gamma Spectrometry

3b. Application of Neutron Activation Analysis to Environmental Materials and Studies

3c. Applications of Activation Analysis in Historical Research—Session Honoring J. M. Blackman

3d. Investigations of Biological Trace Elements by Activation Analysis—Session Honoring A. Chatt

3e. Biology and Medicine: General

3f. Recent Developments in Radiation Source Use and Replacement After the NAS Report of 2008

4. Decommissioning and Environmental Sciences (DESD)

4a. Best of DD&R 2012

4b. Hot Topics and Emerging Issues

4c. International D&D

4d. Site Reutilization

4e. Uranium Recovery and Reclamation

4f. Advances in Environmental Monitoring Techniques

4g. Comparison of the Environmental Effects Between Chernobyl and Fukushima

4h. Contributions of Nuclear Science and Technology to Sustainable Development

4i. Current Issues in Decommissioning and Environmental Restoration

4j. Emergency Planning, Preparedness, and Response

4k. Environmental and Safety Aspects of Spent Fuel Storage

4l. Environmental Aspects of Decommissioning

4m. Environmental Aspects of New Site Selection

4n. Environmental Aspects of the Transportation of Radioactive Materials

4o. Environmental Benefits and Impacts, Life-Cycle Studies, and External Costs of Nuclear and Various Energy Technologies

4p. Environmental Impacts and External Costs of Various Energy Technologies

4q. Environmental Monitoring at Nuclear Facilities

4r. Flood Hazard Assessments and Protection Issues Following the Fukushima Daiichi Events—Panel

4s. Modeling of the Transport of Materials in the Environment

4t. Environmental Sciences: General

4u. Environmental Aspects of Fast Reactors with Integral Pyroprocessing of Used Nuclear Fuel—(Part 1)

4v. Environmental Considerations in Long-Term Energy Policy, including the Role of Nuclear Energy and Its Contribution to Reducing Green House Gas Emissions

5. Education, Training, and Workforce Development (ETWDD)

5a. Advisory Council Metrics and Best Practices—Panel

5b. Cutting Edge Techniques in Education, Training, and Distance Learning

5c. Enrollment Diversity and Nuclear Engineering—Panel

5d. Focus on Communications: Communicating with Policy Makers

5e. Focus on Communications: Meet the Media

5f. Implementation of Successful Nuclear Education Programs in the United States

5g. Kent Hamlin Memorial Session—Best of CONTE 2013

5h. Research by U.S. DOE Consortium for Advanced Stimulation of

Light Water Reactors (CASL) Student Scholars

5i. Revisiting Accident-Proof Nuclear Energy After the Fukushima Accident

5j. Student Design Competition

5k. The Innovations in Fuel Cycle Research Awards Program—A Student Competition

5l. University Program Accreditation 101—Panel

5m. Research by U.S. DOE NEUP-Sponsored Students

5n. The Importance of Professional Engineering Licensure in the Nuclear Industry (panel)

6. Fuel Cycle and Waste Management (FCWMD)

6a. Advances in Aqueous Separation Methods and Waste Treatment

6b. NRC Spent Fuel Transportation Risk Assessment—Panel

6c. Nuclear Fuel Cycle Resources, Sustainability, Reuse and Recycle

6d. Progress in DOE's Fuel Cycle Research and Development Program—Panel

6e. Public Perception of Risk and Nuclear: Addressing the Perception Gap—Panel

6f. Fuel Cycle and Waste Management: General

7. Fusion Energy (FED)

7a. Fusion Energy: General

7b. US Department of Energy—Light Water Reactor

8. Human Factors, Instrumentation, and Controls (HFICD)

8a. A Brief History of Nuclear Instrumentation and Controls (part of the 75th Anniversary of Nuclear Fission)—Panel

8b. Available Technologies for Modernization: Successes and Issues

8c. Updates on Plant I&C System Modernization

8d. Human Factors Engineering: General

8e. Nuclear Instrumentation and Controls: General

9. Isotopes and Radiation (IRD)

9a. Developments and Applications of Neutron Beam Techniques

9b. Innovations in Radiation Detectors: New Designs, Improvements, and Applications

9c. Isotopes and Radiation: General

9d. Nuclear Chemistry and Radiochemistry: Training and Research for the Required Workforce

10. Materials Science and Technology (MSTD)

10a. Computational Modeling

10b. Innovative Fuel Cladding

10c. MOX Fuel

10d. Nuclear Fuel Behavior in Dry Cask Storage Conditions

10e. Nuclear Fuels and Materials

10f. Stress Corrosion Cracking in Nuclear Fuel and Nuclear Systems

10g. Materials Science and Technology: General

11. Mathematics and Computation (MCD)

11a. Current Issues in Computational Methods—Roundtable—Panel

11b. Deterministic and Stochastic Methods for Eigenvalue Computations: A Retrospective and Prospective Look

11c. Uncertainty Quantification and Sensitivity Analysis Methods

11d. Use of CAD in Nuclear Shielding and Criticality Codes

11e. Computational Methods: General

11f. Mathematical Modeling: General

11g. Transport Methods: General

12. Nuclear Criticality Safety (NCSD)

12a. ANS 8 Standards Forum

12b. Data and Analysis in Nuclear Criticality Safety

12c. Fundamentals of Uranium and Plutonium Chemistry Tutorial

12d. FY2012 Recent Nuclear Criticality Safety Program Technical Accomplishments

2013 ANS Winter Meeting and Nuclear Expo

2013 Winter Meeting: Session Titles by Division

13. Nuclear Installations Safety (NISD)

- 13a. Comprehensive Site Level 3 Probabilistic Risk Assessment (PRA)
- 13b. Current Fire Research Activities
- 13c. Emerging Issues in Nuclear Facility Safety
- 13d. Filtered Vents and Fukushima—Panel
- 13e. Joint NRC/EPRI eXtremely Low Probability of Rupture (xLPR) Probabilistic Fracture Mechanics Code: Pilot Study Results
- 13f. Learning from Digital System Experience (Oconee and others)
- 13g. Modeling and Simulation
- 13h. NDE Penetrant Dwell Time—Panel
- 13i. NRC 50.54(f) Generic Letter on NTFTF Recommendation 2.1, Flooding Hazard Assessment—Panel
- 13j. NRC Review of Advanced Reactor Designs
- 13k. NRC-Sponsored Environmentally Assisted Fatigue Research Activities
- 13l. PSA 2013 Highlights—Panel
- 13m. PHOEBUS Update
- 13n. Research at the NRC
- 13o. Update on Fukushima—Panel
- 13p. Nuclear Installations Safety: General

14. Nuclear Nonproliferation Technical Group (NNTG)

- 14a. Nuclear Nonproliferation Technical Group: General

15. Operations and Power (OPD)

- 15a. Advanced /Gen-IV Reactors
- 15b. Codes and Standards Compliance for New Nuclear Plant Construction—Panel
- 15c. Living Legends in Nuclear—Panel
- 15d. New Nuclear Construction Around the World—Status Report—Panel
- 15e. Next Generation Nuclear Plant—Advances and Innovations
- 15f. The International Framework for Nuclear Energy Cooperation—Advances and Innovations
- 15g. Young Blood: Integration and Retention of the Next Generation Nuclear Workforce—Panel
- 15h. Operations and Power: General

16. Radiation Protection and Shielding (RPSD)

- 16a. Best of ICRS/RPSD 2012

- 16b. Computational Tools for Radiation Protection and Shielding
- 16c. Making Ethics Real in Nuclear Engineering—Panel
- 16d. Radiation Protection and Shielding—Roundtable
- 16e. Shielding Problems for Fusion Devices
- 16f. Transport Calculation Benchmark Solutions for Evaluated Shielding, Criticality, and Reactor Physics Problems
- 16g. Radiation Protection and Shielding: General
- 16h. “Illicit Trafficking Radiation Sensor Assessment Program (ITRAP+10) Highlights”

17. Reactor Physics (RPD)

- 17a. Advanced Modeling and Simulation in Reactor Physics
- 17b. Fuel Cycle Options: A Physics Perspective
- 17c. Lattice Physics Benchmarking
- 17d. Nuclear Fission: 75-Year Anniversary—Panel
- 17e. Physics of Compact Reactors for Terrestrial and Space Applications
- 17f. Reactor Physics Analysis Methods
- 17g. Reactor Physics Design, Validation, and Operating Experience
- 17h. Reactor Physics: General

18. Robotics and Remote Systems (RRSD)

- 18a. Robotics and Remote Systems: General

19. Thermal Hydraulics (THD)

- 19a. Computational Thermal Hydraulics
- 19b. Enhancements in Light Water Reactor Thermal-Hydraulic Performance
- 19c. Experimental Thermal Hydraulics
- 19d. General Two-Phase Flow
- 19e. Highlights of NURETH-15—Panel
- 19f. Thermal Hydraulics of SMRs
- 19g. Thermal-Hydraulics Code Verification and Validation
- 19h. Thermal-Hydraulics Reactor Analyst 2.0—Panel
- 19i. Winning Your First NEUP Proposal as a Young Investigator—Panel
- 19j. Young Professional Thermal-Hydraulics Research Competition
- 19k. Thermal Hydraulics: General

20. Young Members (YMG)

- 20a. Young Members: General

2013 Winter Meeting: Technical Divisions

Accelerator Applications (AAD)

Eric Burgett, burgeric@isu.edu
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Aerospace Nuclear Science and Technology (ANSTD)

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Decommissioning and Environmental Sciences (DESD)

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Education, Training, and Workforce Development (ETWDD)

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Fuel Cycle and Waste Management (FCWMD)

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Lee Cadwallader, lee.cadwallader@inl.gov

Human Factors, Instrumentation, and Controls (HFICD)

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Isotopes and Radiation (IRD)

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Materials Science and Technology (MSTD)

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Mathematics and Computation (MCD)

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Nuclear Criticality Safety (NCS)

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Nuclear Installations Safety (NISD)

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Nuclear Nonproliferation Technical Group (NNTG)

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Operations and Power (OPD)

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Radiation Protection and Shielding (RPSD)

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Reactor Physics (RPD)

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Robotics and Remote Systems (RRSD)

Carl Crane, ccrane@gmail.com

Thermal Hydraulics (THD)

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Young Members Group (YMG)

Tyler Schweitzer, tyler.schweitzer@ge.com

2013 ANS Winter Meeting and Nuclear Expo

Embedded Topical Meeting: Risk Management for Complex Socio-Technical Systems • Nov. 10–14, 2013 • Washington, DC • Omni Shoreham Hotel

EMBEDDED TOPICAL MEETING CHAIRS

Honorary Chair

George Apostolakis, *NRC*

General Chair

Ronald Knief, *SNL*

Technical Program Chairs

Zahra Mohaghegh, *NPPE, U. of I at Urbana-Champaign*

Ali Mosleh, *CRR, Univ of Maryland*

Deputy Technical Program Chairs

Kevin Coyne, *NRC*; Rick Grantom, *STP*; Reza Kazemi, *FDA*

PAPER DEADLINES

Submission of Summaries: April 1, 2013– June 12, 2013

Notification of Acceptance: July 23, 2013

Revised Summary Due: August 12, 2013

Full-Paper Due: November 1, 2013

TECHNICAL SESSIONS

A preliminary list of technical topics can be found at

<http://meetings.ans.org/riskmanagement/technical.html>

We seek technical papers that can contribute to or bring new perspectives to any of the listed topics. We are also open to adding innovative special sessions.

Embedded Topical Meeting: 2nd ANS SMR 2013 Conference • November 10–14, 2013 • Washington, DC • Omni Shoreham Hotel

EMBEDDED TOPICAL MEETING CHAIRS

General Chair

Thomas L. Sanders, *SRNL*

Technical Program Chair

Vince Gilbert, *EXCEL Services Corp*

PAPER DEADLINES

ABSTRACT SUBMISSION DEADLINE: June 12, 2013

ABSTRACT ACCEPTANCE: by July 31, 2013

PRESENTATIONS/FULL PAPER SUBMISSIONS DUE: November 12, 2013

SUBMIT ABSTRACTS

Please see www.ans.org/meetings for preliminary information.

TOPICAL CATEGORIES FOR CONSIDERATION

1. *SMR Non-proliferation and Security (Papers/Panel)*
2. *SMR Refueling Designs and Operations (Panel)*
3. *SMR Emergency Planning and Execution (Papers/Panel)*
4. *SMR Research and Development (advanced designs, thermal hydraulics, seismic design, test facilities, hybrid/non-electric applications/process heat, neutronics/advanced reactor fuels, reactivity control, all hazards analysis) (Papers)*
5. *SMR Design and Licensing Updates and Generic Licensing Issues (Panel)*
6. *SMR Codes and Standards (Panel)*
7. *SMR Environmental/Site Screening/Suitability/Selection/Site Re-powering (Papers/Panel)*
8. *PRA and Post-Fukushima Frontiers (Papers/Panel)*
9. *US Government Stewardship of Public Lands /Hosting of SMR /Energy Security Services (Panel)*
10. *SMR Simulators/Control Room Design/Staffing and Human Factors (Panel)*
11. *International SMR Development (Papers/Panel)*

Embedded Topical Meeting: Young Professionals Congress 2013 • November 10–14, 2013 • Washington, DC • Omni Shoreham Hotel

EMBEDDED TOPICAL MEETING CHAIRS

General Chair

Gale Hauck, *Westinghouse*

Technical Program Chairs

Tyler Schweitzer, *GE*; Monica Beistline, *PSEG*

PLANNED PANEL SESSIONS

Exchanging Ideas: How to Communicate Effectively

Work-Life Balance

Must Be the Money

Project Management—It's Just Common Sense, Right?

Going It Alone: The Path to an Independent Energy Policy

First Steps: A Management Crash Course

There and Back Again

Getting the Most Out of ANS

Voice of the Young Generation

Anyone interested in participating can contact Gale Hauck at hauckge@westinghouse.com

Embedded Topical Meeting: Nuclear Nonproliferation – First Fission to the Future • November 10–14, 2013 • Washington, DC • Omni Shoreham Hotel

EMBEDDED TOPICAL MEETING CHAIRS

General Chair

John Gunning, *ORNL*

Technical Program Chair

Howard Hall, *Univ of Tennessee*

PAPER DEADLINES

SUMMARY SUBMISSION DEADLINE: June 14, 2013

AUTHORS' NOTIFICATION: July 23, 2013

REVISED SUMMARY DEADLINE: August 12, 2013

SUBMIT SUMMARIES

Authors are now required to use the ANS Template and "Guidelines for TRANSACTIONS Summary Preparation" available at www.ans.org/pubs/transactions. Summaries can be submitted at www.ans.org/meetings.

Additional meeting information is available at <http://mn.ans.org/>.

TECHNICAL SESSIONS

1. *Opening Plenary Session*
2. *University Programs for Nuclear Security Education—I*
3. *University Programs for Nuclear Security Education—II: Highlighting the International Nuclear Security Education Network*
4. *University Programs for Nuclear Security Education—III: Building the International Workforce—Panel*
5. *Nuclear Security—National and International Needs—Panel*
6. *The Global Threat Reduction Initiative—Accomplishments and Challenges*
7. *The Role and Importance of Policy in Nuclear Security*
8. *Nuclear Energy Development in the Middle East and North Africa: Strategies for Security, Safeguards, and Nonproliferation—Panel*
9. *South Asia Nonproliferation: Perspectives, Prospects, and Challenges*
10. *Nuclear Industry's Role in Nonproliferation Initiatives*
11. *Uranium Management and Impending Conversion Needs in the U.S.*
12. *Improving the Assessment of Proliferation Risk of Nuclear Fuel Cycles—Panel*
13. *Recent Developments in Nuclear Safeguards*
14. *Technology Challenges and Solutions*
15. *Tools for Nuclear Nonproliferation*
16. *Nuclear Nonproliferation Student Poster Session*