



AMERICAN NUCLEAR SOCIETY

Education and Training Division



in conjunction with *ENET*

CONTE 2007

Conference on Nuclear Training and Education

"An International Forum on Nuclear Training and Education and Workforce Issues Facing a Renewed Nuclear Energy Option"



February 4-7, 2007
Hyatt Regency Jacksonville Riverfront
Jacksonville, Florida

Official Program

CONTE 2007

Conference on Nuclear Training and Education

The following list of organizations have endorsed CONTE '07:

European Nuclear Society (*ENS*)

Idaho National Laboratory/Center for Advanced Energy Studies (*INL- CAES*)

Institute of Nuclear Power Operations (*INPO*)

International Atomic Energy Agency (*IAEA*)

National Academy for Nuclear Training (*NANT*)

Nuclear Energy Institute (*NEI*)

Obninsk Institute for Nuclear Power Engineering (*OINPE*)

Ontario Power Generation (*OPG*)

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American Nuclear Society Topical Meeting:
Conference on Nuclear Training and Education
(CONTE '07)

"An International Forum on Nuclear Training and Education and
Workforce Issues facing a Renewed Nuclear Energy Option"

February 4-7, 2007 • Jacksonville, FL • Hyatt Regency Jacksonville Riverfront

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Conference on Nuclear Training and Education (CONTE '07)

Conference Officials/Program Committee

General Chair - J. Art Stall, *Florida Power and Light*

Honorary Chair - Ronald J. Bruno, *TVA Nuclear*

Technical Program Chair - Richard P. Coe, *South Carolina State University*

Technical Program Committee

Gilbert Brown, *University of Massachusetts - Lowell*

Carol Berrigan, *Nuclear Energy Institute*

Philip Beeley, *HMS SULTAN, UK and ENS NESTet*

Arthur Friedman, *Exelon*

Brian Hajek, *Ohio State University*

Kent Hamlin, *Institute of Nuclear Power Operations*

Richard Holman, *DOE - Idaho National Lab*

Andrey Kosilov, *IAEA*

Jane LeClair, *Excelsior College*

Michael Robinson, *Bechtel Bettis*

Pierre Tremblay, *Ontario Power Generation*

Ann Winters, *Institute of Nuclear Power Operations*

Irina Vorobieva, *Obninsk Institute for Nuclear Power Engineering*

Hotel Accommodations

The Hyatt Regency Jacksonville Riverfront Hotel is the location for the 2007 Conference in Nuclear Training and Education (CONTE '07), where all conference activities and technical sessions will take place.

The Hyatt Regency Jacksonville Riverfront Hotel is located in the heart of the downtown business district and within walking distance of the Jacksonville Landing, a landmark riverside marketplace featuring more than 100 shops and restaurants. Experience the warmth, Southern hospitality and vitality that the Hyatt Regency Jacksonville exemplifies.

Conference Registration

Conference registration is required for all attendees and presenters. Badges are required for admission to all technical sessions and events.

The full conference registration fee includes admission to all technical sessions, the opening reception, two conference luncheons, and a copy of the conference proceedings (CD ROM).

Registration Hours

The CONTE '07 Registration Desk will be located in the Grand Ballroom Foyer located on the 2nd level of the Hyatt Regency Jacksonville Riverfront Hotel. You may register, purchase tickets for events, or pick up your registration packet during the following hours:

SUNDAY, FEBRUARY 4, 2007

12:00 p.m. - 6:00 p.m.

MONDAY, FEBRUARY 5, 2007

7:30 a.m. - 6:00 p.m.

TUESDAY, FEBRUARY 6, 2007

7:30 a.m. - 6:00 p.m.

WEDNESDAY, FEBRUARY 7, 2007

7:30 a.m. - Noon



CONTE '07 Proceedings

The CONTE '07 proceedings will be available on CD ROM. Each full conference registrant will receive a copy of the proceedings with their registration material.

Conference Events

Opening Reception in the Expo

SUNDAY, FEBRUARY 4, 2007

6:30 - 8:00 p.m.

One ticket is included in the full conference registration fee. You can purchase additional tickets at the Conference Registration desk for \$50.00.

Conference Luncheon

MONDAY, FEBRUARY 5, 2007

12:15 p.m. - 1:30 p.m.

LOCATION: River Terrace I

Keynote Speaker:

Randall K. Edington, *Senior Vice-President & Chief Nuclear Officer, Arizona Public Service, Palo Verde Nuclear Generating Station*

One ticket is included in the full conference registration fee. You can purchase additional tickets at the Conference Registration desk for \$45.00.

Training Excellence Awards Luncheon

Dr. Gilbert J. Brown (*University of Massachusetts*) and Dr. Andrew C. Klein (*Idaho National Lab*) will each receive the 2006 Training Excellence Award - For their exemplary dedication, service and leadership to nuclear engineering education and training as a Professor/Consultant/NE consulting activities with ANS, ABET, DOE, NEI, IAEA, World Nuclear University and the National Nuclear Accrediting Board.

TUESDAY, FEBRUARY 6, 2007

12:00 p.m. - 1:30 p.m.

LOCATION: River Terrace I

Keynote Speaker:

Admiral John Grossenbacher, *Director, INL*

One ticket is included in the full conference registration fee. You can purchase additional tickets at the Conference Registration desk for \$45.00.



(Top left photo) Inside one of the many ballrooms of the Hyatt Regency Jacksonville Riverfront Hotel. (Photo above) The Jacksonville Hyatt is located along the banks of the St. Johns River and is in the heart of Jacksonville's business district.



(Above) Jacksonville's skyline and the Main Street Bridge viewed from the southbank of the St. Johns River.



Visit the ANS home page www.ans.org for future meetings and additional information

CONTE '07 - SCHEDULE

SUNDAY, FEBRUARY 4, 2007

6:30 p.m. - 8:00 p.m.

Opening Reception in the Expo

MONDAY, FEBRUARY 5, 2007

8:15 a.m. - 10:00 a.m.

Plenary #1

Achieving Excellence in Human Performance—Nuclear Energy Training and Education

10:15 a.m. - 12:15 p.m.

New Educational Partnerships

E-Learning Strategies – I

12:15 p.m. - 1:30 p.m.

CONFERENCE LUNCHEON

Keynote Speaker: Randall K. Edington, *Senior Vice-President & Chief Nuclear Officer, Arizona Public Service, Palo Verde Nuclear Generating Station*

1:30 p.m. - 3:30 p.m.

Panel – Next Generation Start-up/Test Engineer Training

E-Learning Strategies – II

Human Performance Improvement

3:30 p.m. - 5:15 p.m.

Panel – Workforce Development Partnerships

Panel – Training for Performance Improvement

5:30 p.m. - 7:00 p.m.

RECEPTION IN THE EXPO (*Cash Bar*)

TUESDAY, FEBRUARY 6, 2007

8:15 a.m. - 9:30 a.m.

Plenary #2

Accreditation of Nuclear Training and Education—Benchmarks of Excellence

10:00 a.m. - Noon

Leadership Development

TUESDAY, FEBRUARY 6, 2007 (*Continued*)

10:00 a.m. - Noon

Nuclear Engineering Education

Panel – Utility Accreditation – Past, Present and Future

12:00 p.m. - 1:30 p.m.

TRAINING EXCELLENCE AWARDS LUNCHEON

Linking Training/Education and a High Performing Organization.

Session Chair: Jane LeClair (*Excelsior College*)

Keynote Speaker: Admiral John Grossenbacher, *Director, INL*

Presentation of the 2006 Training Excellence Awards

The awards are given by the ANS-ETD in recognition of distinguished contributions and services in the field of Nuclear Training and Education.

1:30 p.m. - 3:30 p.m.

Workforce Development

Panel – Converging Models in Nuclear Energy Application of Human Performance Improvement

Global Nuclear Personnel Training – I

3:30 p.m. - 5:15 p.m.

Global Nuclear Personnel Training – II

Regional Training Managers-Forum

Knowledge Retention

5:30 p.m. - 7:00 p.m.

RECEPTION IN THE EXPO (*Cash Bar*)

WEDNESDAY, FEBRUARY 7, 2007

8:30 a.m. - 9:45 a.m.

Panel - Training for New Nuclear Plants

10:00 a.m. - Noon

Plenary #3: Nuclear Training and Education - A Vital Link to a Successful Renewed Nuclear Energy Option

Conference Closing - Taking Home Human Performance Solutions You Can Implement

MONDAY, FEBRUARY 5, 2007, 8:15 A.M. - 10:00 A.M.

Plenary #1: Achieving Excellence in Human Performance—Nuclear Energy Training and Education

Grand Ballroom 5

8:15 a.m.

Opening and Welcome, J. Art Stall, Senior Vice-President-CNO (*FP&L*)

CONTE History and Program, Dr. Ronald Bruno, Senior Accreditation Manager (*TVA Nuclear*)

Keynote Speaker, Angie Howard, Vice-President (*Nuclear Energy Institute*)

Keynote Speaker, Harold McFarlane, President (*American Nuclear Society*)

Keynote Speaker, Gregory B. Jaczko, Commissioner (*NRC*)

Close Plenary – Set Conference Theme, J. Art Stall, Senior Vice-President (*FP&L*)

MONDAY, FEBRUARY 5, 2007, 10:15 A.M. - 12:15 P.M.

New Educational Partnerships. Session Chair: Ann Winters (*INPO*)

Grand Ballroom 8

10:15 a.m.

Successful Partnerships for Radiation Protection Technology Curriculum Development in Support of the U.S. Nuclear Power Industry, William H. Miller, Gayla Neumeyer, David Jonassen, Matthew Schmidt, Matthew Easter, I. Gelu Ionas, Rose Marra, Geetika Agarwal (*Univ of Missouri, Columbia*), Randy Etter, Bruce Meffert (*Linn State Tech College Advanced Technol Center*)

10:35 a.m.

World Nuclear University Summer Institute, Philippe Hauw (*WNU*) Gilbert J. Brown (*Univ of Massachusetts Lowell*)

10:55 a.m.

A New Paradigm for Radiation Protection Technology Education and Training Utilizing the ASK System, Matthew Schmidt, Matthew Easter, David Jonassen, William Miller, I. Gelu Ionas (*Univ of Missouri, Columbia*)

11:15 a.m.

The Dalton Nuclear Institute's New Partnerships Supporting Nuclear Education and Research, P. J. A. Howarth, J. Billowes (*Univ of Manchester*)

11:35 a.m.

Networking in Nuclear Education Through EU25, Joseph Safieh (*CEA/President, ENEN*)

11:55 a.m.

Training Educators: Pre-College Outreach in Nuclear Engineering, Lisa Marshall, Mohamed Bourham (*NCSU*)

E-Learning Strategies-I. Session Chair: Brian Hajek (*Ohio State*)

Grand Ballroom 7

10:15 a.m.

Reactor Operations Training via Web-Based Access to the UMass-Lowell Research Reactor, John R. White, Leo M. Bobek (*Univ of Massachusetts Lowell*)

10:35 a.m.

Retaining Knowledge Through Threaded Discussions, Pamela Aigner, David W. Helling, Lorraine F. NewHaven (*Westinghouse Electric*)

10:55 a.m.

Technology Enhanced Nuclear Engineering Education with Distance Learning Applications, Gregory A. Moses (*Univ of Wisconsin, Madison*)

11:15 a.m.

Next Generation Training-Intelligent Training Aids, Richard Miller, James McCarthy, Dennis McLain (*Sonalysts*)

River Terrace I

12:15 p.m. - 1:30 p.m.

Conference Luncheon

Keynote Speaker: Randall K. Edington, *Senior Vice-President & Chief Nuclear Officer, Arizona Public Service, Palo Verde Nuclear Generating Station*

MONDAY, FEBRUARY 5, 2007, 1:30 P.M. - 3:30 P.M.

Next Generation Start-up/Test Engineer Training—Panel. Session Chair: Richard Holman (*INL*)

Grand Ballroom 6

1:30 p.m.

Panelists:

Kent Hamlin (*INPO*)

Richard Holman (*INL*)

Charles Tally (*AREVA*)

Stu Long (*Westinghouse*)

John Wheeler (*Entergy*)

William Phoenix (*INL*)

E-Learning Strategies-II. Session Chair: Brian Hajek (*Ohio State*)

Grand Ballroom 7

1:30 p.m.

Multipoint Technologies for Interactive Distance Education, J. Wesley Hines (*Univ of Tennessee*), Brian K. Hajek (*Ohio State*)

MONDAY, FEBRUARY 5, 2007, 1:30 P.M. – 3:30 P.M. *(Continued)*

1:50 p.m.

Web-Based Training and Educational Modules for PRA Qualification and Curriculum, Yehia F. Khalil (*Yale Univ.*), Frank J. Rahn (*EPRI*)

2:10 p.m.

Online Education Programs for Workforce Recruiting and Development, Devon Sheldon (*EPCE*)

2:30 p.m.

Dry Cask Storage Computer-Based Training, Frank S. Tsakeres, Steve Pettinger, Karen Pettinger, William McNeil (*NWI Consulting*)

2:50 p.m.

Production Progress and Development of Distance Education Modules at Texas A&M University, Nuclear Science Center in 2006, Wen-Hsing Hsu, Warren D. Reece (*Texas A&M*), Josh Smith (*NorthStar Interactive Media*)

Human Performance Improvement. Session Chair: Michael Robinson (*Bechtel Bettis*)

Grand Ballroom 8

1:30 p.m.

Human Performance Improvement/Process Improvement (6σ) in NFC, P. S. Prakash, R. N. Jayaraj (*Nuclear Fuel Complex*)

1:50 p.m.

Accelerating the Development of Expert Program Evaluators, Michael A. Robinson (*Bechtel Bettis*)

2:10 p.m.

Managing Risk and Plant Performance Through Improved Human Performance, Richard P. Coe (*South Carolina State University*), Patricia A. Lake (*Excelsior College*), invited

2:30 p.m.

Starting Up Human Performance Improvement at a Multi-Program National Laboratory: The INL's Roadmap and Lessons Learned, Robert E. Richards, Sheri L. Martin (*INL*)

2:50 p.m.

Analyzing Personnel Performance Causes, R. Chevalier (*Certified Performance Technologist*), T. Muschara (*INPO*)

3:10 p.m.

Throughput Assessment Screening Evaluation, Frank S. Tsakeres (*NWI Consulting*)

MONDAY, FEBRUARY 5, 2007, 3:30 P.M. - 5:15 P.M.

Workforce Development Partnerships–Panel. Session Chair: Carol Berrigan (*NEI*)

Grand Ballroom 6

3:30 p.m.

Panelists:

Carol Berrigan (*NEI*)

Penny Manuel (*Gulf Power*)

Bill Miller (*Univ of Missouri*)

Dan Culliton (*FENOC*)

Stan Shoun (*Central Virginia Community College*)

Training for Performance Improvement–Panel. Session Chair: Kent Hamlin (*INPO*)

Grand Ballroom 7

3:30 p.m.

Training as a Core Component of Performance Improvement, William Thompson (*Calvert Cliffs NPP*)

Revision of the ACAD Documents for Licensed Operator Continuing Training and Simulator Training, Patrick Berry (*INPO*)

The Silver Bullet of Training Performance Indicators, Paul C. Manning (*INPO*)

5:30 p.m. - 7:00 p.m.

Reception in the Expo

TUESDAY, FEBRUARY 6, 2007, 8:15 A.M. - 9:30 A.M.

Plenary #2: Accreditation of Nuclear Training and Education–Benchmarks of Excellence

River Terrace I

8:15 a.m.

Keynote Speakers:

Dr. Philip McCullough, Vice President–Training and Accreditation (*INPO*)

Dr. George Peterson, Executive Director (*ABET*)

TUESDAY, FEBRUARY 6, 2007, 10:00 A.M. - 12:00 P.M.

Leadership Development. Session Chair: Art Friedman (*Exelon*)

Grand Ballroom 6

10:00 a.m.

Exelon Leadership Development, Stephan Sheehy (*Exelon*)

10:20 a.m.

Westinghouse Technical Leadership Program, David Helling, Ted Meyer (*Westinghouse Electric*)

TUESDAY, FEBRUARY 6, 2007, 10:00 A.M. - 12:00 P.M. *(Continued)*

10:40 a.m.

Leadership Training for Supervisors, John Sowagi, Kathy Kenwell, Louise Hastie *(OPC)*

11:00 a.m.

A Manager's Guide to Evaluating Training and the Work Environment to Increase Organizational Performance, J. LeClair, A. Kazennov, R. Chevalier, R. Templeton, H. Andersson *(Excelsior College)*

11:20 a.m.

Staffing Strategies in Preparation for the Nuclear Renaissance, Harry B. Bernhard *(Bernhard Management Consulting)*

11:40 a.m.

Excelsior College: College Credit for Nuclear Industry Training, Wayne A. Applewhite, Jane LeClair *(Excelsior College)*

Nuclear Engineering Education. Session Chair: Gilbert Brown
(Univ of Massachusetts Lowell)

Grand Ballroom 7

10:00 a.m.

New Directions in University Nuclear Engineering Support, John Gutteridge *(DOE)*

10:20 a.m.

Developing a Communications Course for Engineers, Audeen Fentiman, Tatjana Jevremovic, Chan Choi, Martin Bertodano *(Purdue Univ)*

10:40 a.m.

Reinvigorating University-Based Education, Research and Development in Nuclear Engineering and Technology, Wm. J. Garland *(McMaster Univ)*

11:00 a.m.

Education and Research Programs in the Institute of Nuclear Engineering and Science of National Tsing Hua University in Hsinchu, Taiwan, Ji-Jung Kai, Chunkuan Shih *(Nat'l Tsing Hua Univ)*

11:20 a.m.

Russian Association of Nuclear Science and Education, V. Murogov, Yu. Korovin, V. Artisyuk, *(Obninsk State Technical Univ for Nuclear Power Eng)*

11:40 a.m.

Reactor Operator Summer Experience Program, Michael Dunlevy, Gilbert Brown *(Univ of Massachusetts Lowell)*

Utility Accreditation—Past, Present, and Future—Panel. Session Chair: Kent Hamlin (INPO)

Grand Ballroom 8

10:00 a.m.

Accreditation of Technical Training in British Energy: A Template for Europe and Beyond, John Moares *(British Energy Training Standards Accreditation Board)*

Lessons Learned from Accreditation Probation, Russell Coon *(PSEG Nuclear)*

River Terrace I

12:00 p.m. - 1:30 p.m.

Training Excellence Awards Luncheon
Linking Training/Education and a High Performing Organization.

Session Chair: Jane LeClair *(Excelsior College)*

Keynote Speaker: Admiral John Grossenbacher, *Director, INL*

Presentation of the 2006 Training Excellence Awards

The awards are given by the ANS-ETD in recognition of distinguished contributions and services in the field of Nuclear Training and Education.

2006 Award Recipients

Dr. Gilbert Brown *(University of Massachusetts-Lowell)*

Dr. Andrew Klein *(INL)*

TUESDAY, FEBRUARY 6, 2007, 1:30 P.M. - 3:30 P.M.

Workforce Development. Session Chair: Carol Berrigan (NEI)

Grand Ballroom 6

1:30 p.m.

Improving Today's Work Force Performance—Ensuring Tomorrow's, Ken Huffman *(EPRI)*

1:50 p.m.

NPP Personnel Training: Challenges, Trends and Improvements, A. Kazennov, T. Mazour, A. Kosilov, J. Cleveland *(IAEA)*

2:10 p.m.

Applying Instructional Analysis Techniques to Support Workforce Performance Management Goals, Brad Cooper *(Plateau Systems)*

2:30 p.m.

Developing a Quality Entry Level Technician Workforce for the Twenty-First Century Commercial Nuclear Industry, James R. Sherrard *(TRCC)*, Trad A. Horner *(Dominion Nuclear Training, Milestone Power Station)*

TUESDAY, FEBRUARY 6, 2007, 1:30 P.M. - 3:30 P.M. (Continued)

2:50 p.m.

A New Nuclear Educational Program at the University of Pittsburgh, Larry Foulke, Larry Shuman, Minking Chyu (*Univ of Pittsburgh*)

3:10 p.m.

Where Did Everybody Go? A Discussion of the Growing Demand for, and Shrinking Supply of, Operators and Operator Instructors, Patrick Berry (*INPO*)

Converging Models in Nuclear Energy Application of Human Performance Improvement—Panel. Session Chair: Richard Holman (*INL*)

Grand Ballroom 7

1:30 p.m.

Human Performance Improvement (*HPI*) is an evolving discipline that seeks to understand and optimize the multi-dimensional relationships among people, technology and organizations within complex, high reliability demanding work domains. It draws from a number of fields including human and organizational factors, industrial engineering, human resources, training, organizational development, and total quality management. HPI is tightly coupled with concepts of High Reliability Organizations, Safety Culture, and quite recent expressions of Reliability Engineering and Performance Variability.

Currently there is not a generally agreed upon model or language that clearly expresses the inter-relationships among the related concepts and approaches to HPI. The need for more coherent descriptions arises when an organization or an industry seeks to use HPI as an improvement strategy and the implementers strive to create a shared mental model and language that are essential for seamless and effective implementation.

This panel session will focus on the experiences in application of Human Performance Improvement by four organizations; the Institute of Nuclear Power Operations (*INPO*), the U.S. Department of Energy (*DOE*), the International Society of Performance Improvement (*ISPI*), and the Defense Intelligence Agency.

Panelists:

W. Earl Carnes (DOE)

Roger Chevalier (Former Director of Certification for ISPI)

Tony Muschara (INPO)

Matthew Peters (Defense Intelligence Agency)

Global Nuclear Personnel Training—I. Session Chair: Philip Beeley (*HMS SULTAN*)

Grand Ballroom 8

1:30 p.m.

International Training Program: 3D S.UN.COP—Scaling, Uncertainty and 3D Thermal-Hydraulics/Neutron-Kinetics Coupled Codes Seminar, A. Petrucci, F. D'Auria (*Universita di Pisa*), T. Bajs (*Univ of Zagreb*) F. Reventos (*UPC - SEN*), Y. Hassan (*Texas A&M*)

1:50 p.m.

The French Sodium School: Teaching Sodium Technology Throughout the World, G. Rodriguez, F. Baque, L. Martin, B. Vray (*CEA*)

2:10 p.m.

Nuclear Nonproliferation and International Security Master of Science Degree at Obninsk Technical University for Nuclear Power Engineering (*LATE*), Irina Vorobieva (*Obninsk State Technical Univ for Nuclear Power Eng*)

2:30 p.m.

The Role of a Nuclear Training Centre in Slovenia, Igor Jenčič (*Jozef Stefan Inst*)

2:50 p.m.

The ENETRAP and EUTERP Project: Contributing to the European Harmonization of E&T in Radiation Protection, Michèle Coeck (*SCK-CEN*), Jan van der Steen (*NRG*)

3:10 p.m.

Human Resource Development at Pakistan Nuclear Regulatory Authority, Shahid A. Mallick (PNRA), Nasir Afghan, Anwar Khurshid (*LUMS*), Shakilur Rahman (*PNRA*)

TUESDAY, FEBRUARY 6, 2007, 3:30 P.M. - 5:15 P.M.

Global Nuclear Personnel Training—II. Session Cochairs: Pierre Tremblay (*Ontario Power*), Irina Vorobieva (*Obninsk State Univ*)

Grand Ballroom 8

3:30 p.m.

Educational Programs for Personnel Training at Obninsk State Technical University for Nuclear Power Engineering, N. Salnikov, V. Artisyuk, (*Obninsk State Technical Univ for Nuclear Power Eng*)

3:50 p.m.

Operator Characteristics and Crew Composition in Crew Performance, Seth A. Kaplan (*George Mason Univ*), Mary J. Waller (*Univ of Maastricht*), Michael J. Cote (*Dominion Nuclear Connecticut*)

TUESDAY, FEBRUARY 6, 2007, 3:30 P.M. – 5:15 P.M. (Continued)

4:10 p.m.

A Simplified Response to a Dirty Bomb Attack, James L. Conca (*New Mexico State Univ*)

4:30 p.m.

Recruiting Operators for Israel Research Reactor 2 (*IRR2*), Roy Freud, Ronen Harari, Daniel Tsemach (*Nuclear Research Center; Negev*)

4:50 p.m.

Unlocking the Power of Pivot Tables for Workforce Trend Analysis, John Wheeler (*Entergy*)

5:10 p.m.

Nuclear Education, Training and Qualification of Personnel Within the Royal Navy, P. A. Beeley, C. Smith, D. Ritchie, M. Evans, A. Foster, M. Paton (*HMS SULTAN*)

Regional Training Managers—Forum. Session Chair: Kent Hamlin (*INPO*)

River Terrace I

MANTG—Mid-Atlantic Nuclear Training Group
SSNTA—Southern States Nuclear Training Group
WESTRAIN—Western Nuclear Training Managers
 Region III Training Managers

Knowledge Retention. Session Chair: Andrey Kosilov (*IAEA*)

Grand Ballroom 7

3:30 p.m.

Successful UK Clean-up and Skills Retention Through Successful Collaboration, John W. Roberts (*Univ of Sheffield*)

3:50 p.m.

Establishment of the National Nuclear Archives, David Klepich, Catherine Plowman (*INL*)

4:10 p.m.

Knowledge Retention at JAERI and 8 Resembled Foreign Research Institutes, Kazuaki Yanagisawa (*IAEA*)

4:30 p.m.

Nuclear Knowledge Retention During Transition Period in Lithuanian Energy System, J. Gylyos, S. Ziedelis, (*Kaunas Univ of Technology*), V. Gediminskas (*Ignalina Nuclear Power Plant*)

4:50 p.m.

Networking for Education, Training and Knowledge Transfer, Yanko Yanev, Andrei Kosilov, Peter Gowin, Keiko Hanamitsu (*IAEA*)

5:10 p.m.

Oak Ridge National Laboratory's Safeguards Laboratory and Educational Programs, A. A. Solodov, C. A. Gariazzo, H. Y. Rollen, Jr. (*ORNL*)

5:30 p.m. - 7:00 p.m.

Reception in the Expo (*Cash Bar*)

WEDNESDAY, FEBRUARY 7, 2007, 8:30 A.M.-9:45 A.M.

Training for New Nuclear Plants—Panel. Session Chair: Jack Roe (*NEI*)

Grand Ballroom 6, 7, 8

8:30 a.m.

This session will highlight the challenges and opportunities inherent in training for new nuclear plants.

Panelists:

Mike Marler (*INPO*)

WEDNESDAY, FEBRUARY 7, 2007, 10:00 A.M.-12:00 P.M.

Plenary #3: Nuclear Training and Education—A Vital Link to a Successful Renewed Nuclear Energy Option

Grand Ballroom 6, 7, 8

10:00 a.m.

Keynote Speaker: Nuclear Power in Developing Countries: How Can We Help?, Dr. Robert L. Long—Past President, ANS (*Nuclear Stewardship*), invited

Conference Closing—Taking Home Human Performance Solutions You Can Implement, Dr. Robert L. Long (*Nuclear Stewardship*)

Dr. Jo-Ann D. Rolle—Vice-President Academic Affairs (*South Carolina State University*)



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EXHIBITORS

Conference on Nuclear Training and Education (CONTE `07)

Booth #15

Constellation Energy, Baltimore, MD

UniStar Nuclear: UniStar Nuclear is a joint venture between Constellation Energy and AREVA to develop and deploy a standardized fleet of new nuclear power facilities in North America. The Uni-Star business model offers a unique “one-stop-shop” approach with AREVA (*designer of the U.S. EPR*), Bechtel (*constructor*), and Constellation Energy (*operator/licensee along with other U.S. EPR owners/operators*).

Booth# 23

Energy Providers Coalition for Education (EPCE), Greenwood Village, CO

The Energy Providers Coalition for Education (*EPEC*) is an industry coalition with members from the broad spectrum of the energy industry. EPCE develops and sponsors industry-driven online education solutions for workforce development in the energy industry. EPCE is managed by the Council for Adult and Experiential Learning (*CAEL*), a non-profit organization based in Chicago.

Booth #24

Entergy Nuclear

Entergy Nuclear, the second-largest nuclear generator in the United States, owns and operates nuclear generating plants in Louisiana, Mississippi, Arkansas, New York, Massachusetts, and Vermont, and operates one nuclear plant in Nebraska. Entergy Nuclear’s parent company, Entergy Corporation is an integrated energy company engaged in electric power production and retail distribution operations. Entergy’s power plants provide customers with approximately 30,000 megawatts of electricity. With revenues of more than \$10 billion, Entergy’s 14,000 employees deliver electricity to 2.7 million utility customers in Arkansas, Louisiana, Mississippi and Texas.

Booth #19

Exelon Nuclear

Exelon Nuclear is a business unit of Exelon Corporation. It operates the largest nuclear fleet in the nation and the third largest fleet in the world. Exelon’s ten nuclear power stations – with 17 reactors – represent approximately 20 percent of the U.S. nuclear industry’s power capacity. Exelon Nuclear’s generating units produced a total of 130.2 million net megawatt-hours of electricity in 2005. The fleet also achieved an average capacity factor of 93.5 percent; the fifth year in a row the capacity factor was greater than 92 percent. There are approximately 6,800 nuclear professionals working in Exelon Nuclear. Whether serving at a site or at Exelon Nuclear headquarters, these professionals implement industry best practices to ensure safe, reliable operation and maintenance throughout the fleet.

Booth #7

Excelsior College, Albany, NY

Excelsior College helps busy working adults earn the degrees they need with flexible distance education programs. The College still holds close the fundamental philosophy that what you know is more important than where or how you learned it. As a world leader in distance education, we apply the college credit you have already earned to a respected degree. To its credit, Excelsior College is the only TAC ABET Accredited Distance Learning Institution in the World.

Booth #20

Florida Power & Light Company, Juno Beach, FL

FPL Group, Inc. is one of the nation’s largest providers of electricity-related services and is nationally known as a high-quality, efficient and customer-driven organization. Its principal subsidiary, Florida Power & Light Company, serves more than eight million people along the eastern seaboard and southern portion of Florida. FPL Energy, LLC, FPL Group’s competitive energy subsidiary is a leader in producing electricity from clean and renewable fuels.

Booth #14

Idaho National Laboratory, Idaho Falls, ID

Idaho National Laboratory is the U.S. Department of Energy’s leading center of nuclear energy research and development where more than 3,500 researchers and support staff work with national and international governments, universities and industry partners to deliver energy and national security solutions and expand the frontiers of science and technology.

Booth #11

L-3 Communications MAPPs, Quebec, Canada

Whether nuclear, fossil or natural gas fired, count on L-3 MAPPs to effectively deliver a simulator solution that best suits your training or engineering needs. We offer simulators ranging from classroom trainers to system trainers to full scale simulators – all designed and aimed at unlocking value for your organization.

Booth #17

NWI Consulting, Knoxville, TN

NWI provides performance improvement consulting to Power Industry, Academic Institutions and other commercial businesses. With well over a decade of experience in these fields, NWI is positioned to provide organizations worldwide with professional assistance with organizational challenges, training intervention strategies and leadership alignment. Some of NWI core experience includes: Power Plant Services, operations, training, maintenance, RP/Chemistry, emergency preparedness, dry cask storage, Executive Coaching, Management Development, Simulator Management, Conflict Resolution, Multi-Discipline Assessment, Root Cause Analysis, Safety Analysis (50.59)

Booth #25

South Carolina State University, Orangeburg, SC

South Carolina State University, located in the city of Orangeburg which is 40 miles east of the state capital at Columbia, is only a five-minute walk from the heart of the city. South Carolina State University, founded in 1896 as a historically Black co-educational institution, embraces diversity among its students, faculty, staff and programs. The University offers sixty baccalaureate programs in the areas of business and applied professional sciences, education, humanities, arts, social sciences, sciences mathematics and engineering technology. In September 2002, South Carolina State University (SCSU), in partnership with the University of Wisconsin-Madison (UW), received approval by the South Carolina Commission on Higher Education to offer a Bachelor of Science degree in Nuclear Engineering to be awarded jointly by both universities. This Nuclear Engineering Degree is the first to be created in over a quarter-century and is the only undergraduate nuclear engineering program located at a Historically Black College/University (HBCU).

Booth #12

Thunder Simulation, Inc., St. Mary's, GA

Thunder Simulation, Inc. presents the Thunder Real Time Executive (T-REX) - the first third-generation simulator environment - a real-time simulator executive and toolkit, a complete, full-featured instructor station and a sophisticated graphical development environment. Thunder Simulation also features THOR and THOR-BOP Advanced Thermal Hydraulic and Neutronics Models-the most thoroughly tested and benchmarked models in the industry.

Booth #18

University of Missouri - Columbia, Columbia, MO

The University of Missouri-Columbia (MU) is developing an Associates of Applied Science Degree in Nuclear Technology (AASDNT) for dissemination to community colleges across the United States who are partnering with nuclear utility companies in their area. The model for this initiative is the two-year degree recently implemented at Linn State Technical College's Advanced Technology Center (Mexico, MO), which is a partner with MU on the project. Graduates of the AASDNT programs will be hired in the Energy sector (*nuclear power plants, supplemental staffing companies and national laboratories*). These graduates will also possess skills for employment in Homeland Security and Advanced Manufacturing. Dissemination of this well-developed, standardized degree program benchmarked against industry training standards (*i.e., ACAD and DOE*) will contribute significantly toward meeting the energy industry's manpower needs for radiation protection technicians to ensure that the demand for qualified, skilled workers throughout the U. S. Learn more about the project and view demonstration modules of the curriculum by visiting the MU booth at the Technology Expo.

Booth #16

Westinghouse Electric Company, Pittsburgh, PA

Westinghouse has provided operations, engineering, maintenance and instrumentation and control training for the nuclear industry for over 35 years. With a focus on performance improvement, its instructional staff, many of whom hold advanced degrees and SRO certifications, uses advanced, student-centered and online learning methods to enhance learning and knowledge retention while providing a positive learning experience for its students.

2007 UTILITY WORKING CONFERENCE AND VENDOR TECHNOLOGY EXPO

August 5-8, 2007

Amelia Island, Florida • Amelia Island Plantation



Visit the ANS home page
www.ans.org for future
meetings and additional
information



The upcoming year promises to be a pivotal one for the nuclear industry. While operating plants continue to improve performance, extend licenses, uprate powers, and refurbish plants for the future, several organizations are pursuing plans for future plants. As in previous years, the 2007 UWC will focus on the pursuit of excellence at operating plants.

Several sessions over two-and-a-half days in parallel in various “tracks” will present state-of-the-art technical issues of importance to the utilities. The Technology Expo, will bring the latest trends in the nuclear sciences and technology and provide financial support for the conference’s social and technical programs.

Many special social engagements are planned throughout the conference: a welcome reception and dinner on Sunday, breakfasts and luncheons on Monday through Wednesday, and special evening events. This gives attendees plenty of opportunities for networking and discussions with peers from other utilities and companies.



CONFERENCE TRACKS

Engineering

Excellence in Business

Nuclear Asset Management

Nuclear Supply Chain

Operations

Performance Improvement

Probabilistic Risk Assessment

Quality Assurance

Regulatory Risk Assessment

Work Management



American Nuclear Society meetings and conferences are the best way to keep current with the ever changing fields of nuclear science and technology.

3 WAYS TO KEEP UP-TO-DATE

- 1) The national meetings feature comprehensive technical programs, professional development workshops, exhibits and special events
- 2) Executive conferences and workshops focus on timely issues and topics regarding the implementation, operation and regulation of the nuclear industry
- 3) Topical meetings provide in-depth coverage of selected technical subjects

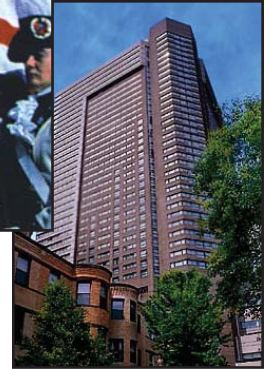
The opportunity to meet other professionals and discuss issues with recognized authorities will enrich your professional development.

Make plans now to attend!

(top right) Boston has a long and rich historical past that dates back to the 1700s. Two main events which happened in the city and helped America win the Revolutionary War were, The Boston Tea Party, December 16, 1773, and the first public reading of The Declaration of Independence, spoken from the balcony of the Boston State House on July 18, 1776.



Fenway Park is home to the Boston Redsox.



The ANS Annual Meeting will be held at the Boston Marriott Copley Hotel.

2007 NATIONAL MEETINGS

DATE	TITLE	LOCATION
Jun 24-28, 2007	2007 ANS ANNUAL MEETING <i>"It's All About the People: The Future of Nuclear"</i> EMBEDDED TOPICAL MEETING SAFETY AND TECHNOLOGY OF NUCLEAR HYDROGEN PRODUCTION, CONTROL AND MANAGEMENT (ST-NH2) EMBEDDED TOPICAL MEETING SPACE NUCLEAR CONFERENCE 2007 (SNC '07)	Boston, Massachusetts <i>Boston Marriott Copley</i>
Nov 11-15, 2007	2007 ANS/ENS INTERNATIONAL MEETING AND NUCLEAR TECHNOLOGY EXPO <i>"Making the Renaissance Real"</i>	Washington, DC <i>Omni Shoreham Hotel</i>

2007 TOPICAL AND OTHER IMPORTANT MEETINGS

DATE	TITLE	LOCATION
Apr 15-19, 2007	JOINT INTERNATIONAL TOPICAL MEETING ON MATHEMATICS & COMPUTATIONS AND SUPERCOMPUTING IN NUCLEAR APPLICATIONS (M&C + SNA2007)	Monterey, California <i>Monterey Marriott</i>
Jul 30 - Aug 2, 2007	EIGHTH INTERNATIONAL TOPICAL MEETING ON NUCLEAR APPLICATIONS AND UTILIZATION OF ACCELERATORS (ACCAPP '07)	Pocatello, Idaho <i>Idaho State University</i>
Aug 5-8, 2007	UTILITY WORKING CONFERENCE AND VENDOR TECHNOLOGY EXPO	Amelia Island, Florida <i>Amelia Island Plantation</i>
Sept 9-13, 2007	GLOBAL '07 <i>"Advanced Nuclear Fuel Cycles and Systems"</i>	Boise, Idaho <i>Boise Convention Center</i>
Sept 16-19, 2007	DECOMMISSIONING DECONTAMINATION & REUTILIZATION (DD&R2007) AND TECHNOLOGY EXPO <i>"Capturing Decommissioning Lessons Learned"</i>	Chattanooga, Tennessee <i>The Chattanooga Hotel</i>
Sept 30 - Oct 4, 2007	TWELFTH INTERNATIONAL TOPICAL MEETING ON NUCLEAR REACTOR THERMAL-HYDRAULICS (NURETH-12)	Pittsburgh, Pennsylvania
Sept 30 - Oct 3, 2007	2007 LWR FUEL PERFORMANCE MEETING/TOP FUEL	San Francisco, California <i>Grand Hyatt Hotel</i>

