# **Nuclear News**

## Index to Volume 50 (2007)

The following listing provides an index to feature articles, authors, special sections, regular columns, and meeting reports published in the 2007 issues of *Nuclear News*.

#### **Feature Index**

#### **January**

Nuclear News Index to Volume 49 (2006), p. 13

(A brief index listing of *NN* features, authors, special sections, regular columns, and meetings of 2006)

Ward Sproat: Comments on the DOE's Yucca Mountain Project, by Rick Michal, p. 29

(Interview with the head of the Department of Energy's Office of Civilian Radioactive Waste Management)

2006 ANS Winter Meeting: Changing times for the nuclear industry, by E. Michael Blake, Dick Kovan, and Rick Michal, p. 44

(A report on the 2006 ANS Winter Meeting, held November 12–16 in Albuquerque, N.M.)

Fusion: ITER gets started, ICF raises profile, by E. Michael Blake, p. 54

(A report on the 17th Topical Meeting on the Technology of Fusion Energy, held during the 2006 ANS Winter Meeting)

NPIC&HMIT 2006: I&C regulatory challenges abound, by Dick Kovan, p. 60

(A report on the 5th International Topical Meeting on Nuclear Plant Instrumentation, Controls, and Human-Machine Interface Technology, held during the 2006 ANS Winter Meeting)

#### **February**

SPECIAL SECTION: Training and Education, pp. 21–39

INIE funding: University consortia put over \$9 million to good use, by Rick Michal, p. 22

(The DOE's Innovations in Nuclear Infrastructure and Education program has helped strengthen nuclear engineering education)

ANS special committee's report: The need for federal funding of nuclear education, by Betsy Tompkins, p. 24

(An American Nuclear Society committee develops a framework for federal investments in nuclear science and engineering education)

Schmidt, Miller, and Jonassen: Nuclear curriculum development at UM-Columbia, by Rick Michal, p. 29

(Interview with members of a curriculum development team that created a new twoyear radiation protection technician program)

MURR celebrates 40 years of operation, by Michael Flagg, p. 30

(Four decades of achievement at the University of Missouri Research Reactor are commemorated)

British universities band together, by Dick Kovan, p. 38

(The Nuclear Technology Education Consortium provides "one-stop shopping" for postgraduate training)

#### March

SPECIAL SECTION: 9th Annual Reference Issue, pp. 35–61

World List of Nuclear Power Plants, p. 35

Maps, p. 49

Statistics, p. 55

(Annual compendium of nuclear power plants under construction, in operation, or retired from service worldwide)

"The U.S.-India Nuclear Cooperation Agreement: A controversial move," by Mark L. Maiello, p. 15

(A perspective on the agreement that would find the two nations sharing nuclear technology ideas and hardware)

Craig Lambert: Exelon Nuclear's engineering chief, by Rick Michal, p. 30

Ja January F February Mr March Ap April My May June Je Jl July Ag August S September O October N November December

(Interview with the head of oversight and governance for Exelon Nuclear's engineering function)

Producing ethanol from corn using nucleargenerated steam, by Charles W. Forsberg, Samuel Rosenbloom, and Richard Black, p. 67

(The use of low-temperature steam from nuclear plants for ethanol production could improve the fuel's economics)

Special Report: DOE and NRC budgets, by E. Michael Blake and Rick Michal, p. 71

(Review and analysis of fiscal year 2008 budget requests of the Department of Energy and the Nuclear Regulatory Commission)

#### **April**

SPECIAL SECTION: Outage Management, pp. 25–50

Mano Nazar: A landmark outage at the Cook plant, by Rick Michal, p. 26

(Refurbishment work being done at the twounit Cook plant prepares it to operate into the 2030s)

A Cook's tour, p. 30

(Photos of the Cook-1 outage by photographer Don Ames)

Borssele's turbine upgrade, by Dick Kovan, p. 33

(Optimizing the outage was key to keeping Borssele's outage duration as short as possible)

Fort Calhoun's "Big Outage," by Michael R. Jones, p. 38

(While other nuclear plants have replaced some components during outages, Fort Calhoun did it all at once)

An inside look at Fort Calhoun's "Big Outage," p. 40

(Photos of Fort Calhoun's outage by photographer James M. Uhland)

Outage duration cut way back at Comanche Peak, by Rick Michal, p. 44

(An improved focus on planning was key to reducing the length of Comanche Peak-2's ninth refueling outage)

Entergy's ANO-1 outage features innovative techniques, by Rick Michal, p. 47

(Techniques used during the outage were so effective that they are now employed at Entergy's other nuclear plants)

Research projects show nuclear desalination economical, by Gamini Seneviratne, p. 60

79

#### May

- Dennis Spurgeon: Raising nuclear's influence at the DOE, by E. Michael Blake, p. 22
- (Interview with the Department of Energy's assistant secretary for nuclear energy)
- U.S. capacity factors: A small gain to an already large number, by E. Michael Blake, p. 27
- (The median capacity factor for the U.S. industry in 2004–2006 was above 90 percent for the first time ever.)

#### June

- Carter and Miller: On commercial quality control during new plant construction, by Rick Michal, p. 31
- (Interview with the two authors of a paper that deals with establishing a QA program that would reduce cost overruns and avoid scheduling delays)

#### July

- SPECIAL SECTION: Health Physics, pp. 25–37
- Tom and Dixie O'Dou: The importance of management in radiation safety programs, by Rick Michal, p. 25
- (Interview with the O'Dous, health physicists who have spent their careers in the nuclear industry)
- Po-210 poisoning in London: Radiation protection agencies tested by a real threat, by Dick Kovan, p. 29
- (After the mysterious death of Alexander Litvinenko from radiation poisoning, the U.K.'s Health Protection Agency swung into action)
- The Information System on Occupational Exposure: 15 years of looking forward, by Brian Ahier and Pascal Deboot, p. 34
- (ISOE plans to enhance ALARA resources it provides to occupational radiation professionals worldwide)
- Don Hintz: Flying high, going nuclear, by Rick Michal, p. 45
- (Profile of the American Nuclear Society's new president)

#### August

- SPECIAL SECTION: Thirteenth Annual Vendor/Contractor Profiles, pp. 45–122
- (Advertorial information about products and services companies provide to the nuclear industry)
- A few opinions, almost completely in agreement, by E. Michael Blake, p. 10
- (A Perspective on readers' responses to a question on whether they would prefer to work at an existing reactor or on the development of a new one)
- Low-level radioactive waste disposal: Are we having a crisis yet? by Nancy Zacha, p. 29
- (A look at the problem presented by the closing of disposal access after June 2008 for Class B and C low-level radioactive waste)

#### **S**eptember

- SPECIAL SECTION: Focusing on Europe and ENC 2007, pp. 31–48
- (Program information on the European Nuclear Congress, held September 16–20 in Brussels, Belgium, and a review of the status of nuclear in Europe)
- ENC 2007: Europe shows the way, by Dick Kovan, p. 34
- (Prospects of new reactors, and for the continued operation of existing reactors, are brightening in some European nations)
- Bob Holland: Introducing young people to the nuclear industry, by Rick Michal, p. 22
- (Interview with an ex-Navy officer who now works for the Shaw Group's nuclear division, on the company's recruiting efforts)
- 2007 ANS Annual Meeting: It's all about the people, by E. Michael Blake, Dick Kovan, Rick Michal, and Sarah Ross, p. 62
- (A report on the 2007 ANS Annual Meeting, held June 24–28 in Boston, Mass.)
- Nuclear hydrogen production, by Rick Michal, p. 75
- (A report on the Topical Meeting on Safety and Technology of Nuclear Hydrogen Production, Control, and Management, held during the 2007 ANS Annual Meeting)
- Space Nuclear Conference (SNC '07), by E. Michael Blake, p. 76
- (A report on the topical meeting, held during the 2007 ANS Annual Meeting)

#### **October**

- SPECIAL SECTION: Plant Maintenance, pp. 27–51
- Exelon's Limerick station pioneers a surveillance frequency control program, by Beth Rapczynski, Gene Kelly, and Phil Tarpinian, p. 28
- (Using a risk-informed process led to savings in resources and costs without compromising safety)
- Jeremy Morton: Callaway's fire loop project, by Rick Michal, p. 33
- (Interview with the lead engineer of a project to repair a corroded fire-suppression system)
- Chemical cleaning of Callaway's underground fire loop, p. 40
- (A pictorial of scenes from the Callaway plant's fire loop project)
- Maintaining nuclear safety standards in a time of craft labor shortages, by Gary McKinney, p. 43
- (The craft labor shortage raises concerns that safety will be compromised in industry in general and in the nuclear industry in particular)
- New-reactor plans draw more attention, by E. Michael Blake, p. 63
- (A report on the Utility Working Conference, held August 5–8 in Amelia Island, Fla.)

#### **November**

- Book review: A book to help save nuclear power, by Ted Rockwell, p. 28
- (A review of Gwyneth Cravens's book, *Power* to Save the World: The Truth About Nuclear Energy)
- Dennis Slaughter: Looking for hidden materials, by Rick Michal, p. 41
- (Interview with a nuclear physicist who started developing a large-scale radiation-detection device soon after September 11, 2001)
- ENC 2007: Focusing on nuclear science and technology, by Dick Kovan, p. 58
- (A report on the European Nuclear Congress, held September 16–19 in Brussels, Belgium)
- Conference to IAEA: Promote nuclear power, by Gamini Seneviratne, p. 62
- (A report on the International Atomic Energy Agency's General Conference, held September 17–21 in Vienna, Austria)

#### **December**

- SPECIAL SECTION: Instrumentation and Controls, pp. 31–47
- Scott Patterson: Digital I&C upgrades and regulatory compliance, by Rick Michal, p. 32
- (A project manager offers comments on digital upgrades at the Diablo Canyon nuclear power plant)
- Areva NP's Forum I&C and Electrical Systems, p. 40
- (New facilities in Germany provide state-ofthe-art equipment for the demonstration and testing of nuclear I&C systems)
- International focus on instrumentation, controls, and human-machine interface technologies, by Oszvald Glöckler, David E. Holcomb, and Richard T. Wood, p. 43
- (A number of international meetings addressing digital I&C and human-machine interface have been held in 2006–2007)
- Challenges and strategies for nuclear energy policy in Japan, by Tadao Yanase, p. 56
- (Japan's Nuclear Energy National Plan sets forth guidelines and policies for continuing nuclear's development)

### **Author Index**

- Ahier, Brian, and Pascal Deboot, "The Information System on Occupational Exposure: 15 years of looking forward," Jl, p. 34
- Blake, E. Michael, "Fusion: ITER gets started, ICF raises profile," Ja, p. 54
- \_\_\_\_\_, "Dennis Spurgeon: Raising nuclear's influence at the DOE," My, p. 22
- \_\_\_\_\_, "U.S. capacity factors: A small gain to an already large number," My, p. 27
- \_\_\_\_\_\_, Perspective: "A few opinions, almost completely in agreement," Ag, p. 10
- \_\_\_\_\_, "Space Nuclear Conference (SNC '07)," S, p. 76
- \_\_\_\_\_, "New-reactor plans draw more attention," O, p. 63

- Blake, E. Michael, Dick Kovan, and Rick Michal, "2006 ANS Winter Meeting: Changing times for the nuclear industry," Ja, p. 44
- Blake, E. Michael, Dick Kovan, Rick Michal, and Sarah Ross, "2007 ANS Annual Meeting: It's all about the people," S, p. 62
- Blake, E. Michael, and Rick Michal, "Special Report: DOE and NRC budgets," Mr, p. 71
- Flagg, Michael, "MURR celebrates 40 years of operation," F, p. 30
- Forsberg, Charles W., Samuel Rosenbloom, and Richard Black, "Producing ethanol from corn using nuclear-generated steam," Mr, p. 67
- Glöckler, Oszvald, David E. Holcomb, and Richard T. Wood, "International focus on instrumentation, controls, and human-machine interface technologies," D, p. 43
- Jones, Michael R., "Fort Calhoun's 'Big Outage," Ap, p. 38
- Kovan, Dick, "NPIC&HMIT 2006: I&C regulatory challenges abound," Ja, p. 60
- \_\_\_\_\_, "British universities band together," F, p. 38
- \_\_\_\_\_, "Borssele's turbine upgrade," Ap, p.
- \_\_\_\_\_, "Po-210 poisoning in London: Radiation protection agencies tested by a real threat," JI, p. 29
- \_\_\_\_\_, "ENC 2007: Europe shows the way," S, p. 34
- \_\_\_\_\_, "ENC 2007: Focusing on nuclear science and technology," N, p. 58
- Maiello, Mark L., Perspective: "The U.S.-India Nuclear Cooperation Agreement: A controversial move," Mr, p. 15
- McKinney, Gary, "Maintaining nuclear safety standards in a time of craft labor shortages," O, p. 43
- Michal, Rick, "Ward Sproat: Comments on the DOE's Yucca Mountain Project," Ja, p. 29
- " "INIE funding: University consortia put over \$9 million to good use," F, p. 22
- "Schmidt, Miller, and Jonassen: Nuclear curriculum development at UM-Columbia," F, p. 29
- \_\_\_\_\_, "Craig Lambert: Exelon Nuclear's engineering chief," Mr, p. 30
- \_\_\_\_\_, "Mano Nazar: A landmark outage at the Cook plant," Ap, p. 26
- \_\_\_\_\_, "Outage duration cut way back at Comanche Peak," Ap, p. 44
- \_\_\_\_\_, "Entergy's ANO-1 outage features innovative techniques," Ap, p. 47
- \_\_\_\_\_, "Carter and Miller: On commercial quality control during new plant construction," Je, p. 31
- \_\_\_\_\_, "Tom and Dixie O'Dou: The importance of management in radiation safety programs," Jl, p. 25
- \_\_\_\_\_, "Don Hintz: Flying high, going nuclear," Jl, p. 45
- ""Bob Holland: Introducing young people to the nuclear industry," S, p. 22
- \_\_\_\_\_, "Nuclear hydrogen production," S, p. 75

- \_\_\_\_\_, "Jeremy Morton: Callaway's fire loop project," O, p. 33
- \_\_\_\_\_, "Dennis Slaughter: Looking for hidden materials," N, p. 41
- \_\_\_\_\_, "Scott Patterson: Digital I&C upgrades and regulatory compliance," D, p. 32
- Rapczynski, Beth, Gene Kelly, and Phil Tarpinian, "Exelon's Limerick station pioneers a surveillance frequency control program," O, p. 28
- Rockwell, Ted, "A book to help save nuclear power," N, p. 28
- (A review of Gwyneth Cravens's book, Power to Save the World: The Truth About Nuclear Energy)
- Seneviratne, Gamini, "Research projects show nuclear desalination economical," Ap, p. 60
- \_\_\_\_\_, "Conference to IAEA: Promote nuclear power," N, p. 62
- Tompkins, Betsy, "ANS special committee's report: The need for federal funding of nuclear education," F, p. 24
- Yanase, Tadao, "Challenges and strategies for nuclear energy policy in Japan," D, p. 56
- Zacha, Nancy, "Low-level radioactive waste disposal: Are we having a crisis yet?" Ag, p. 29

### **Departments**

#### Backscatter, by Bill Minkler

Two steps backward, Ja, p. 72

The importance of proving Poincaré, F, p. 68

What goes on in those cubicles all day? Mr, p. 104

Slobs vindicated, Ap, p. 88

Let the old guys fight the wars, My, p. 68

Stagg party, Je, p. 80

Water under troubled bridges, Jl, p. 72

Cyber prom, Ag, p. 140

Making engineering exciting again, S, p. 104

Our rainbow of creeks, O, p. 88

Finding America, revisited, N, p. 92

## Backscatter, by A. Priori (E. Michael Blake)

This is not a new power reactor (wink), D, p. 84

#### Letters

Ja, p. 20; Mr, p. 12; Ap, p. 10; My, p. 10; Je, p. 11; Jl, p. 9; Ag, p. 9; S, p. 10; O, p. 10; D, p. 12

#### **Nuclear Notes, by Betsy Tompkins**

A positive outlook for the new year, Ja, p. 4

Training and Education: Facing the facts, F, p. 4

Keeping up to date with the nuclear world, Mr, p. 4

Learning lessons through outage management, Ap, p. 4

Small steps—and a large one, too, Je, p. 4

ANS and the nuclear industry: It's all about the people, Jl, p. 4

Nuclear technology: The double-edged sword, Ag, p. 4

Looking ahead to Europe and back to Boston, S, p. 4

Getting the word out: Is progress being made? O, p. 4

Linking the old and the new, N, p. 4

Another year wraps up, enthusiasm still runs high, D, p. 4

#### Nuclear Notes, by E. Michael Blake

The new balancing act, My, p. 4

#### **Quoting at Random**

- Comments on the State of the Union, energy, and global warming, Mr, p. 13
- NRC Commissioner Jeffrey Merrifield: You ain't seen nothin' yet, Je, p. 27
- NRC Commissioner Peter Lyons: Contributions of structural mechanics to the science of nuclear regulation, N, p. 10

#### **Perspective**

Maiello, Mark L., "The U.S.-India Nuclear Cooperation Agreement: A controversial move," Mr, p. 15

Blake, E. Michael, "A few opinions, almost completely in agreement," Ag, p. 10

#### **Meetings**

2006 ANS Winter Meeting: Changing times for the nuclear industry, Ja, p. 44

Fusion: ITER gets started, ICF raises profile, Ja, p. 54

NPIC&HMIT 2006: I&C regulatory challenges abound, Ja, p. 60

IAEA's Standing Advisory Group on Nuclear Energy, Je, p. 51

IAEA's 12th quadrennial International Symposium on Advances in Isotope Hydrology and Its Role in Sustainable Water Resources Management, Je, p. 54

2007 ANS Annual Meeting: It's all about the people, S, p. 62

Safety and Technology of Nuclear Hydrogen Production, Control, and Management, S, p. 75

Space Nuclear Conference (SNC '07), S, p. 76

IAEA's International Conference on Knowledge Management in Nuclear Facilities, S, p. 59

Utility Working Conference: New-reactor plans draw more attention, O, p. 63

2007 European Nuclear Congress, N, p. 58

International Atomic Energy Agency's General Conference, N, p. 62