

Nuclear News

Index to Volume 56 (2013)

The following listing provides an index to feature stories, authors, special sections, regular columns, and meeting reports published in the 2013 issues of *Nuclear News*.

• Indicates articles in special section

Feature Index

January

Nuclear News Index to Volume 55 (2012), p. 20
(A brief index listing of *NN* features, authors, special sections, regular columns, and meetings of 2012)

SPECIAL SECTION: Education, Training & Workforce Issues, pp. 35–46

• Video games in the classroom, by Tim Gregoire, p. 36

(Instructors are exploiting the interactive qualities of modern video games to teach complex nuclear concepts.)

• Developing a new nuclear workforce, by Tim Gregoire, p. 40

(A panel of speakers at the ANS Winter Meeting presented their ideas on education, training, and workforce development.)

• Engaging America's experts: Argonne's program to support the IAEA, by Allison M. Holiski, p. 42

(The lab's International Programs help researchers from abroad and make U.S. expertise available to the International Atomic Energy Agency.)

SPECIAL REPORT: 2012 ANS Winter Meeting, pp. 51–70

• Future nuclear technologies: Resilience and flexibility, by E. Michael Blake, Tim Gregoire, Dick Kovan, and Michael McQueen, p. 51

(A report on the 2012 ANS Winter Meeting, held November 11–15 in San Diego, Calif.)

• Topical Meeting: Post-Fukushima: Do nuclear safety regulations need a major overhaul? by E. Michael Blake, Dick Kovan, and Michael McQueen, p. 62

(With the completion of analysis of the lessons from the Fukushima Daiichi accident, this meeting provided a forum for the exchange of information on what has been learned.)

• Topical Meeting: Advances in Thermal Hydraulics, by E. Michael Blake, p. 68

(A set of presentations on small modular reactor designs was included in this meeting.)

February

A strategic approach to improved EPU implementation, by Dan O'Loughlin, p. 33

(Treating a reactor's extended power uprate as though it is either construction or maintenance runs the risk of delays and cost overruns.)

March

SPECIAL SECTION: 15th Annual Reference Issue, pp. 45–78

• Notes on the 2013 World List of Nuclear Power Plants, p. 46

• World List of Nuclear Power Plants, p. 47

• Nuclear Power Plants No Longer in Service, p. 66

• Abbreviations Used in this List, p. 68

• Power Reactors by Nation; Power Reactors by Type, Worldwide, p. 69

• Maps of Commercial Nuclear Power Plants Worldwide, p. 70

• U.S. Power Reactor License Renewal, p. 77

• New Power Reactor Projects in the United States; U.S. Power Reactor Ownership/Operator Changes, p. 78

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

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April

SPECIAL SECTION: Outage Management, pp. 37–51

• Ken Sturtecky: Keys to outage success, by Michael McQueen, p. 38

(FirstEnergy Generation's fleet outage director discusses prerequisites for effective outage management.)

• Beaver Valley-2: Replacing fuel and low-pressure turbines, p. 42

(FirstEnergy Nuclear Operating Company's September 2012 refueling outage at Beaver Valley-2 featured the installation of two new low-pressure turbines.)

• Darlington's new CANDU refurbishment hub, by Dick Kovan, p. 46

(A new facility at Ontario Power Generation's Darlington station will serve as project headquarters for the refurbishment outages of all four reactors.)

May

U.S. capacity factors: A very small decline, by E. Michael Blake, p. 30

(The median capacity factor is less than a point lower than in the three previous periods, but the closure of Kewaunee and Crystal River-3 may signal a new era.)

Overview of the U.S. DOE Light Water Reactor Sustainability Program, by Shannon M. Bragg-Sitton, Jeremy T. Busby, Bruce P. Hallbert, Kathryn A. McCarthy, Richard A. Reister, Curtis L. Smith, and Donald L. Williams, p. 47

(The DOE's LWRS Program is developing the scientific basis for extending nuclear power plant operating life beyond the current 60-year licensing period.)

EPRI's Long-Term Operations Program, by Sherry Bernhofs and Richard Tilley, p. 57

(Started in 2009, the LTO program is now a large collaborative research effort reaching across multiple countries and entities.)

Waste Management Conference 2013: Recurring themes: Old and new challenges, by Tim Gregoire

(While its theme was international collaboration, the 2013 Waste Management Conference provided the DOE an opportunity to highlight U.S. efforts to address radioactive waste.)

June

SPECIAL SECTION: New Construction, pp. 49–72

- Renaissance Watch: Four new reactors being built, for now, by E. Michael Blake, p. 50 (This year and next, there should be visible progress on Summer-2 and -3 and Vogtle-3 and -4, along with Watts Bar-2—and nothing else here in the United States.)

- Generation III+ is about to start generating, by E. Michael Blake, p. 60

(New reactors, some with features never before employed, are probably less than a year away from producing electricity for the first time.)

- New nuclear strategy focuses on Britain's new-build program, by Dick Kovan, p. 66 (The United Kingdom's first nuclear industrial strategy foresees the country's becoming a leading nuclear nation once again.)

Special Report: DOE budget proposal for fiscal year 2014, by E. Michael Blake, Tim Gregoire, and Michael McQueen, p. 41

(With budgeting for federal programs in FY 2013 still unresolved, the White House has sent its FY 2014 request to Congress.)

July

Donald Hoffman: Full speed ahead, by Michael McQueen, p. 52

(The 59th president of the American Nuclear Society is a firm believer in the benefits of nuclear science and technology and in the notion that ANS must become *the* society for all NS&T professionals.)

Solid-state detectors: A new approach to thermal neutron detection, by Tim Gregoire, p. 64

(A team of researchers at Kansas State University discuss the commercial development of a semiconductor-based neutron detector.)

Quoting at Random: NRC Chairman Macfarlane: Life after Fukushima—"The new normal," p. 24

(Nuclear Regulatory Commission Chairman Allison Macfarlane delivered remarks on May 14, 2013, at the Nuclear Energy Institute's Nuclear Energy Assembly in Washington, D.C.)

August

SPECIAL SECTION: 19th Annual Vendor/Contractor Profiles, pp. 38–142

(Advertorial information about products and services provided by companies in the nuclear industry)

2013 ANS Annual Meeting: The view ahead: Prospects and challenges, by E. Michael Blake, Tim Gregoire, and Michael McQueen, p. 29

(A report on the 2013 ANS Annual Meeting, held June 16–20 in Atlanta, Ga.)

September

John E. Kelly: Regaining GIF's momentum, by Dick Kovan, p. 40

(The chairman of the Generation IV International Forum is aiming to reinvigorate interest in the effort to develop the next generation of reactor technology.)

October

SPECIAL SECTION: Nuclear Power Plant Maintenance, pp. 41–67

- Nuclear plant maintenance: There's an app for that, by Nick Camilli, p. 42

(A first-of-its-kind software application delivers step-by-step guidance, with 3-D animation and sound, to a maintenance worker's tablet—and provides a glimpse of the future of electronic work packages.)

- Lennie Daniels: An award-winning welding process, by Michael McQueen, p. 50

(At Calvert Cliffs, a new method for welding pressurizer heater sleeves resulted in increased plant efficiency and improved radiation safety.)

- Getting to the bottom of pump impeller damage at Krško, by Dick Kovan, p. 56

(A Krško maintenance team used both hydraulic and computer models to solve the problem of pump impeller damage and won a NUMEX Award in the process.)

- Utility Working Conference: INPO has a hand in Maintenance sessions, by E. Michael Blake, p. 60

(On a trial basis, the Institute of Nuclear Power Operations moved to the UWC some of the presentations it usually makes at its own meeting in June.)

November

Special Report: The federal government shutdown, by E. Michael Blake, Tim Gregoire, and Michael McQueen, p. 24

(On October 1, at the start of fiscal year 2014, the DOE and the NRC found themselves having to reduce their activities to the minimum necessary to support national security and public health and safety.)

Building an effective nonproliferation program: U.S. support of IAEA safeguards, by Warren Stern and Susan Pepper, p. 44

(The IAEA's safeguards system is intended to encourage peaceful uses of nuclear energy and at the same time inhibit nuclear proliferation.)

IAEA inspectors investigate nuclear capabilities in "Freedonia," p. 52

(Brookhaven National Laboratory hosts annual training exercise for a team of IAEA inspectors.)

IAEA General Conference: Sixty years after "Atoms for Peace," by Dick Kovan, p. 64

(The International Atomic Energy Agency is now so well established that it must devote some effort to replacing aging facilities.)

IAEA Scientific Forum focuses on protecting the oceans, by Dick Kovan, p. 68

(Governments need to place the issue of stress on oceans high on their policy agendas.)

December

SPECIAL SECTION: Robotics & Remote Systems, pp. 33–46

- Howie Choset: Snake robots, by Michael McQueen, p. 34

(An innovative tool for infrastructure inspection may soon be slithering its way through nuclear power plants.)

- Robots: Helping in everyday operations, ready for emergencies, by Kim Monti, p. 38

(Robots are proving to be of value in nuclear power plants for both routine work and in emergency situations.)

- Surveying places other robots cannot reach, by Dick Kovan, p. 44

(In June, the new High-Access Survey Robot carried out its initial operation inside a damaged reactor building at the Fukushima Daiichi plant.)

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Backscatter, by A. Priori

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