

Nuclear News

Index to Volume 58 (2015)

The following listing provides an index to feature stories, authors, special sections, regular columns, and meeting reports published in the 2015 issues of *Nuclear News*.

• *Indicates articles in special section*

Feature Index

January

Nuclear News Index to Volume 57 (2014), p. 13
(A brief index listing of *NN* features, authors, special sections, regular columns, and meetings of 2014)

SPECIAL SECTION: Education, Training & Workforce Issues, pp. 33–50

- Addressing nuclear’s aging workforce: Challenges and solutions, by David Heler, Tony Marco, and Clay Goodman, p. 34
(Palo Verde’s workforce planning and training strategy ensures that the plant will have the right employees with the right skills for the future.)
- James Sherrard: The nuclear workforce pipeline, by Tim Gregoire, p. 42
(Three Rivers Community College’s Nuclear Engineering Technology coordinator talks about what makes the program one of the best in the country.)
- Mochovce reaches safety milestone with unique full-scope simulator, by Gill Grady, p. 46
(The new simulator for Mochovce-3 and -4 offers flexibility and performs a variety of functions, including the training of new reactor operators.)

SPECIAL REPORT: 2014 ANS Winter Meeting, pp. 57–74

- Nuclear: The foundation of clean energy, by E. Michael Blake, Tim Gregoire, Dick Kovan, and Michael McQueen, p. 57
(A report on the 2014 ANS Winter Meeting,

held November 9–13 in Anaheim, Calif.)

- Topical Meeting: Technology of Fusion Energy, by E. Michael Blake, p. 72
(As the magnetic fusion community waits for a new formal schedule for ITER, some of the attention has already moved on to DEMO.)

February

SPECIAL SECTION: Instrumentation and Controls, pp. 35–69

- Regulatory oversight of nuclear power plant digital technology use, by Steven A. Arndt, p. 37
(The NRC has improved its regulatory guidance by addressing a number of technical issues associated with safety-related applications of digital I&C technology.)
- Diablo Canyon Digital I&C ISG-06 pilot application: Lessons learned, by Kenneth J. Schrader, John W. Hefler, and Edward L. “Ted” Quinn, p. 42
(The review of Diablo Canyon’s license amendment request for a digital I&C modification has provided valuable lessons for future applications of ISG-06.)
- Level-0 PRA: Risk-informing the nuclear power plant I&C system, by Sacit M. Cetiner, Michael D. Muhlheim, George F. Flanagan, and Richard T. Wood, p. 48
(Increasing plant safety and availability is the goal of integrating a Level-0 PRA into the design and operation of a nuclear power plant.)
- On-line monitoring of process instrumentation sensors and cables, by H. M. Hashemian, p. 54

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(Application in nuclear facilities thus far has been limited, but the results have encouraged industry to seek generic approval in the United States.)

- NEET program’s Advanced Sensors and Instrumentation research, by Bruce P. Hallbert and Suibel Schuppner, p. 63
(The Department of Energy has established a new I&C program in support of nuclear energy technologies.)

March

SPECIAL SECTION: 17th Annual Reference Issue, pp. 39–72

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

- Notes on the 2015 World List of Nuclear Power Plants, p. 40
- World List of Nuclear Power Plants, p. 41
- Nuclear Power Plants No Longer in Service, p. 60
- Abbreviations Used in the World List, p. 62
- Power Reactors by Nation; Power Reactors by Type, Worldwide, p. 63
- Maps of Commercial Nuclear Power Plants Worldwide, p. 64
- U.S. Power Reactor License Renewal, p. 71
- New Power Reactor Projects in the United States; U.S. Power Reactor Ownership/Operator Changes, p. 72

Baseload nuclear with variable electricity to the grid, by Charles Forsberg, Per F. Peterson, Lin-Wen Hu, and Kumar Sridharan, p. 77

(The fluoride-salt-cooled high-temperature reactor with a nuclear air-Brayton combined cycle is designed to meet the challenges of a changing electricity market.)

SPECIAL REPORT: FY 2016 DOE and NRC

budgets, p. 82

(The increase of more than 9 percent is carried through in many of the Department of Energy's major program areas, including nuclear energy.)

Quoting at Random: Sen. Lamar Alexander: The United States without nuclear power, p. 20

(Sen. Lamar Alexander, chairman of the Senate Appropriations Committee's Subcommittee on Energy and Water Development, delivered a speech on February 5, 2015, at the Nuclear Energy Institute in Washington, D.C.)

April

SPECIAL SECTION: Outage Management, pp. 29–43

- Kelly Alderman: Exceeding expectations in outage performance, by Michael McQueen, p. 30

(Callaway's outage manager led a successful refueling outage in 2014 and is looking to maintain that momentum going forward.)

- Reactor vessel closure head replacement at Callaway, p. 34

(Callaway's fall 2014 refueling outage featured a first-time replacement of the plant's reactor vessel closure head.)

- Darlington station to double its lifetime of service to Ontario, by Dick Kovan, p. 38

(Lessons learned from previous CANDU refurbishments provide the basis for Darlington's 10-year project plan.)

Data-centric configuration management, by Kenneth Barry, Robert Renuart, and Thomas Esselman, p. 52

(An advanced configuration management information system can provide operational and economic benefits, encompassing all phases of a nuclear plant's life cycle.)

May

U.S. capacity factors: Keeping the grid stable, by E. Michael Blake, p. 28

(For about 15 years, power reactors as a whole have maintained high, steady output, but this may not be enough to keep some of them in service.)

Bill Lindquist: A proposal for interim storage of spent fuel, by Tim Gregoire, p. 44

(Waste Control Specialists is answering the Blue Ribbon Commission's call for consolidated interim storage of spent nuclear fuel.)

Waste Management Conference: Preparing for the hard work ahead, by Tim Gregoire, p. 54

(Much has been done to safely manage the world's radioactive waste, but as many countries, including the United States, seek a deep geologic disposal solution, much work remains to be done.)

June

SPECIAL SECTION: Construction and Supply Chain, pp. 39–53

- Renaissance Watch: Licensing without construction, by E. Michael Blake, p. 40

(Fermi-3 is the first licensed new reactor project to be put on the back burner, but it may not be the last.)

- Counterfeit and fraudulent parts: Improving prevention and detection, by Marc Tannenbaum, p. 46

(The U.S. NRC and commercial nuclear industry are making efforts to keep counterfeit and fraudulent parts out of the nuclear industry's supply chain, especially where safety-related parts and components are concerned.)

- Marketing nuclear projects globally: The Rosatom approach, by Dick Kovan, p. 50

(Russia, through Rosatom, its State Atomic Energy Corporation, is making plans to provide nuclear power plants to countries worldwide.)

July

The NRC: Observations on commissioner appointments, by Steven P. Nesbit and Paul T. Dickman, p. 40

(Based on biographical data gathered from the NRC's website, certain trends in commissioners' [and chairmen's] characteristics have been identified.)

Eugene Grecheck: Looking to the future, by Tim Gregoire, p. 54

(The 61st president of the American Nuclear Society has a long history of taking on difficult tasks and finding solutions that lead to real action.)

August

SPECIAL SECTION: Twenty-first Annual Vendor/Contractor Profile Special Section, pp. 44–131 (Advertorial information about products and services provided by companies in the nuclear industry).

Adequate protection at the DOE's nuclear facilities, by Kamiar Jamali, p. 32

(The DOE can build upon the framework that has already been set out to establish a practical definition of "adequate protection.")

SPECIAL REPORT: 2015 ANS Annual Meeting: Nuclear technology: An essential part of the solution, by E. Michael Blake, Tim Gregoire, and Michael McQueen, p. 137

(A report on the 2015 ANS Annual Meeting, held June 7–11 in San Antonio, Texas.)

September

After Fukushima Daiichi: Developments on several fronts, by Dick Kovan, E. Michael Blake, and Tim Gregoire, p. 34

(With a reactor producing electricity for the first time under Japan's new regulatory system, recovery work at Fukushima Daiichi has met some milestones, and regulatory response in the U.S. is gaining some clarity.)

October

SPECIAL SECTION: Nuclear Power Plant Maintenance, pp. 45–71

- Planning allows for maximization of steam generator effectiveness, by Ryan Wolfe, p. 46

(Robust characterization practices, routine preventive maintenance, and chemistry optimization can mitigate steam generator problems.)

- Prolonging steam generator life with improved sludge removal, p. 52

(Luminant teamed with Westinghouse and Dominion Engineering in 2014 for its top-of-tubesheet steam generator cleaning project at Comanche Peak-2.)

- Columbia's 22nd refueling and maintenance outage: 13,000 tasks in 50 days, p. 58

(Energy Northwest's Columbia station ended its longest continuous operational run when a 50-day refueling and maintenance outage began on May 9, 2015.)

- Utility Working Conference: INPO on maintenance and work management, by Michael McQueen, p. 64

(The Institute of Nuclear Power Operations returned to the UWC this year to share its insights into the most pressing issues facing nuclear plant maintenance.)

Utility Working Conference: Meeting sustainability challenges in the nuclear industry, by Michael McQueen, p. 77

(The plenary sessions addressed topics such as leadership, second license renewal, and "regulatory wisdom.")

November

Monica Regalbuto: Leveraging technology development, by Tim Gregoire, p. 62

(The DOE's new assistant secretary for Environmental Management does most of her work in the field.)

Quoting at Random: Secretary Moniz: Non-proliferation and the Iran deal, p. 22

(Ernest Moniz, secretary of the U.S. Department of Energy, presented remarks on September 14, 2015, during the 59th International Atomic Energy Agency General Conference in Vienna, Austria.)

Perspective: Closing the civility gap at NRC public meetings, by Dan Yurman, p. 26

(The legitimacy of the agency and the diligence and compliance of the nuclear utilities it regulates are being challenged by people who disrupt its meetings.)

Continued

IAEA General Conference: Atoms for peace and development, by Dick Kovan, p. 52
(The IAEA's director general highlighted the role of nuclear science and technology in achieving the U.N.'s new sustainable development goals.)

2015 Radwaste Summit: Budgets and schedules, by Tim Gregoire, p. 58
(Federal funding, or the lack thereof, was a topic of this year's summit, along with updates on possible timelines for Yucca Mountain, consolidated interim storage, and the reopening of WIPP.)

December

SPECIAL SECTION: Fuel, pp. 29–43

- Accident-tolerant fuel: A range of viewpoints, p. 30
(Whatever benefits may be available from innovative fuel designs, time and money must be spent on the designs' development.)
- Developing enhanced accident-tolerant fuel, by Mike Morrell, p. 30
- Coated molybdenum alloy cladding to enhance accident tolerance of LWR fuel, by Bo Cheng, p. 31
- Technical, economic, and regulatory hurdles for accident-tolerant fuel, by Michelle Bales and Paul Clifford, p. 31
- Coordinated effort needed in accident-tolerant fuel development, by Kristopher Cummings, p. 32
- The need for global collaboration on material characterization and testing, by Andrew Sowder, p. 32
- Update on the DOE's ATF development program, by Shannon M. Bragg-Sitton and W. Jon Carmack, p. 34
(Accident-tolerant fuel R&D is intended to have an impact on the current U.S. power reactor fleet, with insertion in a commercial reactor on track for 2022.)
- U.S. uranium mining: An industry in transition, by Susan Gallier, p. 38
(Several years after uranium prices dropped from their peak in 2007, developers and regulators are making their way through a changing regulatory landscape and a seemingly stagnant market.)

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