

## Nuclear News

### Index to Volume 60 (2017)

The following listing provides an index to feature stories, authors, special sections, regular columns, and meeting reports published in the 2017 issues of *Nuclear News*.

•Indicates articles in special section

#### Feature Index

##### January

*Nuclear News* Index to Volume 59 (2016), p. 12  
(A brief index listing of *NN* features, authors, special sections, regular columns, and meetings of 2016)

**SPECIAL SECTION:** Education, Training & Workforce Issues, pp. 37–49

- VCU's nuclear engineering program marks 10th anniversary, by Rebecca Jones, p. 38  
(In its 10 years of existence, the nuclear engineering program at Virginia Commonwealth University is helping meet industry personnel needs and contributing to the discipline.)
- IAEA's Internet Reactor Laboratory expands access to training, by Dick Kovan, p. 42  
(The Internet-based remote learning tool is being used to train nuclear engineering students.)
- 2016 ANS Winter Meeting: Nuclear engineering programs: Successes and challenges, by Kaitlin Schuler, p. 46  
(Increasing interest in nuclear as zero-emissions energy has boosted nuclear engineering education throughout the United States.)

**SPECIAL REPORT:** 2016 ANS Winter Meeting: Sustaining the nuclear promise, by Tim Gregoire, Dick Kovan, Michael McQueen, and Kaitlin Schuler, p. 56  
(A report on the 2016 ANS Winter Meeting, held November 6–10 in Las Vegas, Nev.)

##### February

Chernobyl's New Safe Confinement moved into position, p. 34  
(The process of moving the massive structure over the destroyed Unit 4 reactor building was completed in late November.)

Topical Meeting: HTR 2016: Finding pathways to commercialization, by Dick Kovan, p. 48  
(High-temperature reactors have their own challenges, including how to move from concept to demonstration to commercialization.)

##### March

**SPECIAL SECTION:** 19th Annual Reference Issue, pp. 33–65  
(Annual compendium of nuclear power plants under construction, in operation, or retired from service worldwide)

- Notes on the 2017 World List of Nuclear Power Plants, p. 34
- World List of Nuclear Power Plants, p. 35
- Abbreviations Used in the World List, p. 54

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F	February	Ag	August
Mr	March	S	September
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Je	June	D	December

- Power Reactors by Nation; Power Reactors by Type, Worldwide, p. 55
- Nuclear Power Plants No Longer in Service, p. 56
- Maps of Commercial Nuclear Power Plants Worldwide, p. 58
- U.S. Power Reactor License Renewal, p. 64
- New Power Reactor Projects in the United States; U.S. Power Reactor Ownership/Operator Changes, p. 65

##### April

**SPECIAL SECTION:** Construction and Supply Chain, pp. 25–40

- Work at UAE's Barakah progressing on schedule, by Dick Kovan, p. 26  
(The United Arab Emirates started preparations for the Barakah nuclear power station in 2010 and plans to start up Unit 1—on which construction began in 2012—this year.)
- Building a better supply chain, interview by Michael McQueen, p. 30  
(Economic development expert Rick Prugh and engineering professor David Schmidt talk about their work to develop the nuclear supply chain in the state of Missouri.)
- Hinkley Point C: Preparations end, full construction begins, by Dick Kovan, p. 36  
(The signing of the final contracts for EDF Energy's Hinkley Point C project on September 29, 2016, marked the start of full-on construction.)

##### May

U.S. capacity factors: Close to a new peak, by E. Michael Blake, p. 24  
(The nation's power reactors—even those threatened with early closure—have shown that they can remain highly productive.)

Wolf Creek: Water jet peening of reactor vessel nozzles, by Justin Daily, p. 38  
(Wolf Creek is the first U.S. nuclear power plant to implement this process, with the goal of mitigating primary water stress corrosion cracking in reactor vessel nozzles.)

Waste Management Conference: Sustaining the momentum, by Tim Gregoire, p. 53  
(As new priorities and budgets loom, the 2017 Waste Management Conference offered an opportunity to reflect on progress made and lessons learned.)

## June

**SPECIAL SECTION:** Instrumentation & Controls and Human Factors, pp. 39–58

- NRC’s plan to modernize digital I&C regulatory infrastructure, by Steven A. Arndt and Sushil Birla, p. 40

(External stakeholders are being engaged to reach a common understanding of digital I&C challenges and priorities.)

- Human factors for main control room modernization, by Kenneth D. Thomas, Ronald L. Boring, Jacques V. Hugo, and Bruce P. Hallbert, p. 46

(A novel approach to control room modernization design combines advanced human factors methods with unique laboratory facilities.)

- The IEC standard series on cybersecurity for nuclear power plants, by Edward L. Quinn, Ludovic Pietre-Cambaces, Thomas Walter, and Juergen Bochtler, p. 52

(A new series of international standards related to computer security, cybersecurity requirements, and security controls is being prepared for application to the I&C systems of operating and new nuclear power plants.)

## July

Robert Coward: Playing on an all-star team, by Tim Gregoire, p. 50

(Having worked on a wide range of challenging engineering projects, the 63rd president of the American Nuclear Society is ready to lead the nuclear team forward.)

**SPECIAL REPORT:** FY 2018 DOE and NRC budget requests, p. 36

(Although the FY 2018 budget request for the Department of Energy shows decreases in funding for a number of nuclear-related programs, Congress will have the opportunity to make revisions—and, no doubt, it will.)

## August

**SPECIAL SECTION:** Twenty-Third Annual Vendor/Contractor Profile Special Section, pp. 38–95

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

Fauske and Henry: On vapor/steam explosion analysis, interview by Rick Michal, p. 29

(Vapor explosions are an integral part of reactor safety evaluations when accident conditions could lead to molten fuel coming in contact with liquid coolant.)

**SPECIAL REPORT:** 2017 ANS Annual Meeting, pp. 96–114

- A time for innovation, by Tim Gregoire, Michael McQueen, and Kaitlin Schuler, p. 96

(A report on the 2017 ANS Annual Meeting, held June 11–15 in San Francisco, Calif.)

- Topical Meeting: NPIC&HMIT 2017: Innovation in nuclear plant I&C, by Tim Gregoire, p. 113

(Facing the effects of both headwinds and tailwinds, nuclear innovation continues to advance with the help of better I&C systems.)

- Transitioning to the workforce, by Kaitlin Schuler, p. 127

(ANS’s Young Members Group sponsored a session at which attendees had the opportunity to learn from the experiences of a panel of young professionals.)

## September

Current radiation protection limits: An urgent need for change, by Jerry M. Cuttler and William H. Hannum, p. 34

(Appropriate revisions to radiation protection guidelines for medical and nuclear power applications will ultimately lead to major public health and economic benefits.)

## October

**SPECIAL SECTION:** Outage Management and Plant Maintenance, pp. 35–69

- A unique approach to long-term reactor internals management, by Chaz McFeaters and Rob DeNight, p. 36

(PSEG Nuclear’s outage and contingency planning campaign for baffle-former bolt inspections and replacements saved time, reduced worker dose, and will benefit future outage planning.)

- Photo Feature: Perry’s 29-day refueling outage is shortest in its operating history, p. 42

(FirstEnergy Nuclear Operating Company’s Perry plant completed its 16th refueling outage, which included more than 9,600 outage work activities, in April 2017.)

- Executing the Darlington refurbishment project—Year 1, by Dick Kovan, p. 50

(The Darlington refurbishment project passed its first major milestone and hit other important targets by the end of the critical first year of its execution.)

- Utility Working Conference: A closer look at Efficiency Bulletins, by Michael McQueen, p. 56

(Industry experts view successful implementation of maintenance and work management EBs as key to ensuring nuclear’s long-term viability.)

## November

Motta: On light-water reactor materials, interview by Rick Michal, p. 22

(A new textbook published by the American Nuclear Society describes the fundamentals of the behavior of nuclear materials in light-water reactors.)

Accident-tolerant fuel: Enhancing safety, by Sumit Ray, p. 44

(Research and development of accident-tolerant fuels is under way by three companies, including Westinghouse, which plans to insert lead test rods of its EnCore Fuel in Byron-2’s reactor by 2019.)

## December

**SPECIAL SECTION:** Waste Management, pp. 39–65

- The new decommissioning rules, by Tim Gregoire, p. 40

(The NRC is in the process of amending its regulations for decommissioning power reactors, with the goal of having a new rule in place within the next two years.)

- Photo Feature: D&D of Hanford’s PFP nears end, p. 48

(The decommissioning of Hanford’s Plutonium Finishing Plant, one of the DOE’s highest priorities in the cleanup of its legacy nuclear waste, nears completion.)

- Ken Robuck: The D&D business model, interview by Tim Gregoire, p. 54

(With decades of experience in decommissioning shutdown nuclear power plants, EnergySolutions takes on the full life cycle of radioactive waste generation, including characterization, packaging, transportation, and disposition.)

- National Cleanup Workshop: The path to cleanup, by Tim Gregoire, p. 60

(Budgets, politics, safety, and a 45-day EM review were all topics of discussion during the 2017 National Cleanup Workshop.)

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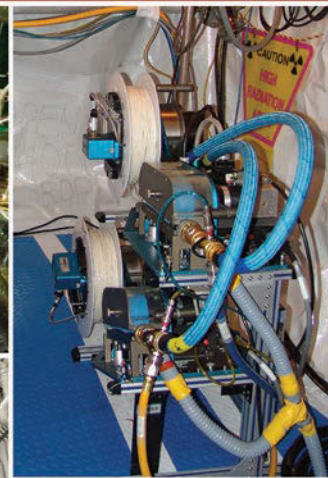
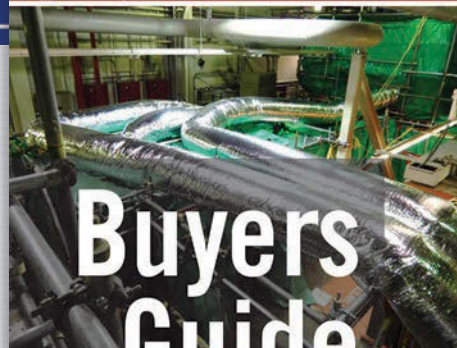
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# Nuclear News

Mid-April

## Buyers Guide



Nearly 850 companies throughout 472 categories of products and services utilized by the nuclear industry





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