

# Nuclear News

April 2013

Volume 56, Number 4



p. 44

## DEPARTMENTS

### EDITORIAL

Backscatter	84
Calendar	6
Equipment & Services	83
Late News	17
Nuclear Notes	4
People	76
Recently Published	21
Short Courses & Seminars	20

### ADVERTISING

Direct Answer	70
Index to Advertisers	69
Employment Ads Begin	84

## Coming up . . .

**Mid-April**—44th Annual Buyers Guide

**May**—Special Feature: U.S. Nuclear Power Plant Capacity Factors

**June**—Special Section on New Construction

## Members: View Nuclear News online!

At <[www.ans.org](http://www.ans.org)>, click on Member Center at the upper right of your screen. Log in with your user name (member ID#) and password (last name, all lowercase, or your selected password). Click on the heading for the current issue of *Nuclear News*.

## SPECIAL SECTION: OUTAGE MANAGEMENT 37

Ken Sturtecky: Keys to outage success	
INTERVIEW BY MICHAEL MCQUEEN	38
Beaver Valley-2: Replacing fuel and low-pressure turbines	42
Darlington's new CANDU refurbishment hub	
BY DICK KOVAN	46

## WASTE MANAGEMENT 22

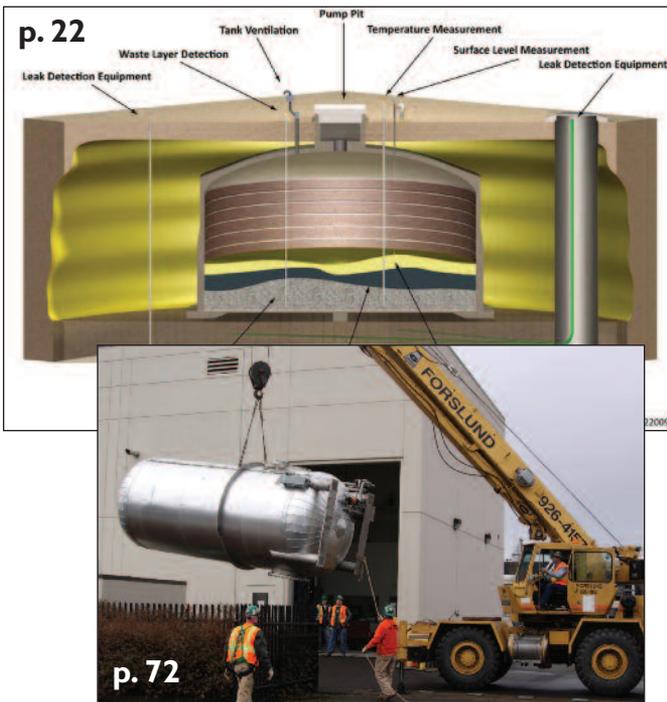
More underground storage tanks at Hanford Site found to be leaking. CH2M Hill agrees to pay \$18.5 million in Hanford fraud case. DOE Environmental Management projects removed from GAO's high-risk list. DOE seeks comments on Savannah River Site tank closure plan. Defense Nuclear Facilities Safety Board finds vulnerabilities in spent fuel storage at Savannah River Site.

## POWER 27

U.S. EPR design certification delayed again. Obama nominates Ernest Moniz to head DOE, Gina McCarthy to head EPA. US-APWR design certification review targets moved back six months. NRC approves amendments for Vogtle and Summer basemat concrete. NRC proposes 0.3 percent increase in annual fee for power reactors. NRC issues annual assessment letters to power reactor licensees. Three new issues added to Fort Calhoun restart checklist. Renaissance Watch: An update on developments that may lead to new power reactors. NRC combines post-Fukushima rule-makings on station blackout and spent fuel pool makeup water, instrumentation. NRC cites Farley for fire safety-related violations. NRC changes status of six reactors in Reactor Oversight Process action matrix. NRC branch says single-phase faults should be averted. Advisory Committee on Reactor Safeguards approves safety review for Limerick's license renewal application. EIS, SER target dates for Watts Bar-2 delayed a few months. NRC upholds UniStar license denial; other licensing developments. (Also see Calls for Papers, pp. 79-82, for the 2013 ANS Winter Meeting and Nuclear Technology Expo, November 10-14, 2013, Washington, D.C.)

## SECURITY 52

DOE's Podonsky suggests that the National Nuclear Security Administration may need to be eliminated. House bill calls for increased sanctions on entities assisting proliferation efforts in Iran, North Korea, and Syria. Moscow hosts talks with United States on Nunn-Lugar Cooperative Threat Reduction program. DOE's Office of Inspector General finds weaknesses in Los Alamos National Laboratory's cybersecurity program.



## INTERNATIONAL

59

Canadian government to engage private sector in management of Atomic Energy of Canada Limited's Nuclear Laboratories. Amano is reappointed director general of the International Atomic Energy Agency. Referendum may decide fate of Taiwan's Lungmen nuclear power plant. UAE's Emirates Nuclear Energy Corporation applies for license to construct Barakah-3 and -4. New submarine fabrication facility in Brazil has nuclear capability. Finland's Fennovoima considers mid-size reactors for Hanhikivi site. Site characterization contract signed for Poland's first nuclear power plant. United Kingdom's Parliament sets out challenges for nuclear new-build program.

## INDUSTRY

64

Areva expands in Arizona, North Carolina; other business developments. GEI Consultants awarded Wolf Creek contract; DOE awards contracts. Crydom reports that relays supplied to Scientech may be faulty.

## ISOTOPES & RADIATION

66

Canadian government backs three new projects to produce technetium-99m using particle accelerators.

## EDUCATION, TRAINING & WORKFORCE

71

HTGR simulator to be installed at Oregon State University. Nuclear energy authority created in Virginia.

## FUEL

73

Global Laser Enrichment submits proposal to DOE for laser enrichment plant at Paducah site. NRC says construction of Savannah River Site's Mixed Oxide Fuel Fabrication Facility proceeding acceptably. Denison Mines, Uranium Energy report resource estimates.

## STANDARDS & DOCUMENTATION

75

Comments requested on draft standard; two standards projects being initiated. An NRC regulatory issue summary addresses effects of sequestration on operations.

## Editorial Staff

### EDITOR & PUBLISHER

Betsy Tompkins

### INTERNATIONAL EDITOR

Dick Kovan

### SENIOR EDITOR

E. Michael Blake

### SENIOR ASSOCIATE EDITOR

Phyllis Ruzicka

### ASSOCIATE EDITORS

Tim Gregoire

Michael McQueen

### PRODUCTION EDITOR

Patricia A. Matas

### DESKTOP EDITOR

Chris Salvato

### EDITORIAL ASSISTANT

Susan Gallier

### CONTRIBUTING COLUMNISTS

Linda C. Byus

Bill Minkler

## Advertising & Circulation Staff

### SALES MANAGER

Jeff Mosses

### ADVERTISING/PRODUCTION

ASSISTANT MANAGER

Erica McGowan

### ADVERTISING DESIGNER/CIRCULATION SPECIALIST

Lisa Dagley

## Editorial Advisory Committee

Sam K. Bhattacharyya, Roger S. Reynolds,  
Roger W. Tilbrook, and Paul Turinsky

## ANS Officers

### PRESIDENT

Michael L. Corradini

### VICE PRESIDENT/ PRESIDENT-ELECT

Donald R. Hoffman

### TREASURER

Michaele C. Brady Raap

### CHAIRMAN, ANS PUBLICATIONS STEERING COMMITTEE

Martin L. Grossbeck

## Administrative

### EXECUTIVE DIRECTOR

Robert C. Fine

## ANS Headquarters

### GENERAL NUMBER

708/352-6611

Fax 708/352-0499

www.ans.org

### NUCLEAR NEWS EDITORIAL

708/579-8245

Fax 708/579-8204

nucnews@ans.org

### NUCLEAR NEWS ADVERTISING

708/579-8226

800/NUC-NEWS

Fax 708/352-6464

www.ans.org/advertising

advertising@ans.org

### INTERNATIONAL EDITOR (DICK KOVAN)

902/455-3575

dkovan@ans.org

*Nuclear News* (ISSN: 0029-5574), Volume 56, Number 4. Published monthly (except during the month of April when issued twice monthly) by the American Nuclear Society, Incorporated, with business, executive, and editorial offices at 555 N. Kensington Ave., La Grange Park, Illinois 60526; telephone 708/352-6611. Subscription rate is \$440 for 2012; overseas subscribers add \$70 per year for postage and handling. Additional fee for online access is \$110. Single copy price is \$42; \$12 additional for overseas postage and handling (except for the Buyers Guide issue, which is \$105; \$15 additional for overseas postage and handling). Individual ANS members receive *Nuclear News* as part of membership. Replacement copies may be obtained at the single copy price, as long as copies are available. Inquiries about the distribution and delivery of *Nuclear News* and requests for changes of address should be directed to the American Nuclear Society. Allow six weeks for a change to become effective. POSTMASTER: Send change of address orders to *Nuclear News*, American Nuclear Society, 555 N. Kensington Ave., La Grange Park, Illinois 60526, or <nucnews@ans.org>.

*Nuclear News* is printed in New Richmond, Wis. 54017, by St. Croix Press, Inc. Nonprofit periodicals postage paid at La Grange, Illinois, and at additional mailing offices. Copyright © 2013 by the American Nuclear Society, Inc. Trademark registered in USA and Canada.

Opinions expressed in this publication by the authors are their own and do not necessarily reflect the opinions of the editors, the American Nuclear Society, or the organizations with which the authors are affiliated, nor should publication of author viewpoints or identification of materials or products be construed as endorsement by this publication or by the Society.

Texts of most *Nuclear News* articles are available on the LexisNexis database, from Mead Data Corporation.

