

Editorial Staff

EDITOR & PUBLISHER
Betsy Tompkins

INTERNATIONAL EDITOR
Dick Kovan

SENIOR EDITOR
Rick Michal

SENIOR ASSOCIATE EDITOR
E. Michael Blake

ASSOCIATE EDITOR
Phyllis Ruzicka

PRODUCTION EDITOR
Patricia A. Matas

DESKTOP EDITOR
Chris Salvato

EDITORIAL ASSISTANTS
Andrea Bianchi
Susan Gallier

CONTRIBUTING COLUMNISTS
Linda C. Byus
Bill Minkler

Advertising & Circulation Staff

SALES MANAGER
Jeff Mosses

ADVERTISING/PRODUCTION
ASSISTANT MANAGER
Erica McGowan

CIRCULATION ASSISTANT
Bess Weglarz

Editorial Advisory Committee

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

ANS Headquarters

GENERAL NUMBER
708/352-6611
Fax 708/352-0499

Web site <www.ans.org>

NUCLEAR NEWS ADVERTISING
708/579-8226, 800/NUC-NEWS
Fax 708/352-6464

Web site <www.ans.org/advertising>
e-mail <advertising@ans.org>

NUCLEAR NEWS EDITORIAL
708/579-8245
Fax 708/352-6464
e-mail <nucnews@ans.org>

INTERNATIONAL EDITOR
(DICK KOVAN)
+44 1737 842687
e-mail <dkovan@compuserve.com>

Nuclear News

November 2010

Volume 53, Number 12

SPECIAL SECTION: NONPROLIFERATION **55**

Introduction: Current efforts toward a sustainable nonproliferation policy
BY MELVIN R. BUCKNER AND BENJAMIN J. CROSS **56**

Proliferation pathways and barriers
BY WILLIAM E. BURCHILL AND MELVIN R. BUCKNER **57**

Status of nonproliferation agreements **61**
BY PAUL NELSON

Reducing proliferation risks through nuclear energy assistance to developing countries
BY DAVID R. BOYLE, AMIR H. MOHAGHEGHI, AND KATE M. PUTMAN **67**

Nonproliferation initiatives and plutonium disposition in Russia and the United States
BY STEVEN P. NESBIT **70**

Safeguarding and protecting the nuclear fuel cycle
BY TROND BJORNARD, HUMBERTO GARCIA,
WILLIAM DESMOND, AND SCOTT DEMUTH **76**

How proliferation resistant is resistant enough?
BY SHAHEEN A. DEWJI, MICHAELA E. EDDY, AND ROBERT A. BARI **81**

POWER **24**

Progress Energy sees need for just a fourth of new Harris reactors' power. NRC overrules Prairie Island ASLB, ends renewal hearing. Restoration of Bellefonte construction permits upheld, COL proceeding put on hold. Focus on Finance. Resolution of sump strainer issue sees progress, obstacles. Insulation finding at North Anna results in shutdowns, inspection. Advisory Committee on Reactor Safeguards takes last look at ESBWR and ABWR designs. Mitsubishi Heavy Industries informs NRC of changes to US-APWR I&C. Maximizing the Assets: A status report on license renewal and power uprates. NRC inspection yields yellow finding on flood protection strategy at Fort Calhoun. Application submitted for extended power uprate at Grand Gulf. NRC tells ASLBs presiding over COL applications for new Texas reactors to rethink document access. Is Callaway-2 still viable? Other licensing actions. NRC issues draft NUREG on cable trays, other documents.

APPLICATIONS **40**

Areva's Avaris technique for repairing valves *in situ*.

FUEL **44**

Project On Government Oversight says DOE should convert surplus HEU to LEU for reactor fuel. Energy Secretary Chu urges IAEA to move forward with nuclear fuel bank. NRC issues safety evaluation report for proposed Eagle Rock Enrichment Facility. NRC issues operating license to Moore Ranch uranium recovery facility.

SECURITY **50**

2010 Homeland Security Awards presented. Nine Mile Point security guards seek relaxing of NRC rule regarding overtime. Former contract workers at Los Alamos National Laboratory attempt to sell classified information.

INTERNATIONAL **88**

Japan signs nuclear cooperation agreements with Jordan, Kuwait, and Malaysia. Japanese panel to study production of medical isotopes. Japan's Tepco to raise funds for new power reactors. Second new-reactor plan initiated for Borssele site in the Netherlands. Britain's Sizewell B returns to service after six-month outage. British government funds studies on nuclear innovation. Lithuania seeks binding proposals for new power reactors. Japanese firms to study feasibility of new power reactor in Kazakhstan. China's Ling Ao-3 begins commercial operation. Belgian companies sign agreement with China for new MOX fuel fabrication facility. World Nuclear Association launches online forum for public communicators.



p. 42



p. 108

MEETINGS

97

54th IAEA General Conference—Director General Amano makes first General Conference address; Euratom-IAEA cooperation in safety, safeguards, security; Energy Secretary Chu on U.S. support of the IAEA; INPRO's 10th anniversary: Looking back and ahead; IAEA supports UAE's Khalifa University; India donates teletherapy unit to Sri Lanka; Scientific Forum: Cancer a growing threat in the developing world.

WASTE MANAGEMENT

110

DOE opens Depleted Uranium Hexafluoride Conversion Plant in Piketon, Ohio.

INDUSTRY

112

GE Hitachi, Michigan firms form pacts for Fermi-3; other business developments. Babcock & Wilcox management contracts for three DOE facilities are extended; other contracts.

ISOTOPES & RADIATION

113

NRC allows wider availability of radiation safety officer status. NRC approves pilot program for cobalt-60 production at Hope Creek.

EDUCATION, TRAINING & WORKFORCE

114

DOE funding boosts university-driven nuclear R&D. NRC funds nuclear program at Wilberforce University.

STANDARDS

116

Comments requested on draft standard.

DEPARTMENTS

EDITORIAL

Backscatter	120
Calendar	6
Calls for Papers	14
Equipment & Services	118
Late News	17
Nuclear Notes	4
People	116

Proceedings Available 22

Recently Published 20

Short Courses and Seminars 12

ADVERTISING

Direct Answer 106

Index to Advertisers 105

Employment Ads Begin 115

ANS Officers

PRESIDENT
Joe F. Colvin

VICE PRESIDENT/PRESIDENT-ELECT
Eric P. Loewen

TREASURER
Lloyd A. Wright

CHAIRMAN, ANS PUBLICATIONS
STEERING COMMITTEE

Roger W. Tilbrook

Administrative

EXECUTIVE DIRECTOR
John M. Tuohy, Jr.

Coming up ...

December—Special Section on Fuel

January—Special Section on Education, Training & Workforce Issues; Preview 2011: A look at the year ahead

Members: View

Nuclear News online!

At <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*.



Audit Bureau of Circulations

Nuclear News (ISSN: 0029-5574), Volume 53, Number 12. 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 2010; overseas subscribers add \$65 per year for postage and handling. Single copy price is \$42; \$12 additional for overseas postage and handling (except for the Buyers Guide issue, which is \$110; \$15 additional for overseas postage and handling). Individual ANS members receive *NN* 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 © 2010 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 NEXIS database, from Mead Data Corporation.

Cover image © James Steidl - Fotolia.com