# **Editorial Staff**

PUBLISHER Jon Payne

editor-in-chief Gregg M. Taylor international editor Dick Kovan

SENIOR EDITOR Elizabeth S. Tompkins

SENIOR ASSOCIATE EDITOR Richard A. Michal ASSOCIATE EDITORS

Susan E. Gallier Patrick Sinco

PRODUCTION EDITOR Susan E. Gallier DESKTOP EDITOR

Chris Salvato

EDITORIAL ASSISTANT Nancy Slove

CONTRIBUTING COLUMNIST Bill Minkler

# Advertising Staff

SALES MANAGER Jeffery R. Mosses

ADVERTISING/PRODUCTION ASSISTANT Patricia Fairchild

> CIRCULATION ASSISTANT Bess Weglarz

# Editorial Advisory Committee

Ramon Ashley, Sam K. Bhattacharyya, Annick Carnino, Doug Stickney, Roger Tilbrook, and Paul Turinsky

# ANS Headquarters

GENERAL NUMBER 708/352-6611 Facsimile 708/352-0499 Web site <www.ans.org>

NUCLEAR NEWS ADVERTISING 708/579-8226, 800/NUC-NEWS Facsimile 708/352-6464 Web site <www.ans.org/advertising> e-mail <advertising@ans.org>

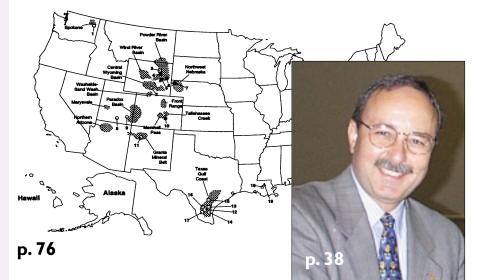
> NUCLEAR NEWS EDITORIAL 708/579-8245 Facsimile 708/352-6464 e-mail <nucnews@ans.org>

INTERNATIONAL EDITOR (DICK KOVAN) 011-44-1737-842687 e-mail <100444.3711@compuserve.com>

# **Nuclear News**

July 2000

Volume 43, Number 8



# FEATURE ARTICLES

Reducing radiation exposure during North Anna outages Richard Rhodes on nuclear technology Changing perspectives on nuclear energy Lake: From technical achievement to technical leadership BY RICK MICHAL 30 INTERVIEW BY RICK MICHAL 33 BY RICHARD RHODES 36

PROFILE BY PATRICK SINCO 38

# LIST OF SELECTED OUTAGES AT U.S. NUCLEAR POWER PLANTS

#### **BOOK REVIEW**

Historical Encyclopedia of Atomic Energy, by Stephen E. Atkins

## POWER

Nuclear is solution to global warming, authors say. Nuclear plant dealings—completed, under way, and in negotiations. NRC extends Oconee's life 20 years—second site so far. Annual assessments for oversight test program available on Web. Three plants subject of special NRC focus. STARS resource sharing group joins together some Westinghouse units. Could restart for American Electric Power's Cook-2 be near at hand? ConEd-NU pairing receives FERC approval. NU's Millstone-2 back in service following record outage. NRC team sent to Diablo Canyon to investigate fire and reactor shutdown.

## **OPERATIONS**

Reducing radiation exposure during North Anna outages.

## **INTERNATIONAL**

GAO Report: Assessing Western aid to Soviet-designed reactors. New Canadian safety commission has increased powers. Brazil's Angra-2 testing complete, to go critical by mid-June. France's DSIN authorizes restart of Blayais-2 following floods. BNFL sets timetable for retiring U.K.'s Magnox plants. British Energy cuts annual dividend by 50 percent. New legislation to close Ignalina-1 passes Lithuania's parliament. Implications of nuclear phaseout in Germany dominate KTG/DAtF meeting. To reprocess or not? OECD/NEA study shows little dose difference. IAEA organizes aerial search for radiation sources in Georgia. European Union: Use of U from secondary sources hurting producers.

## MEETINGS

ANS Executive Conference: Engineering in a competitive nuclear industry. Nuclear Energy Assembly: Mood is buoyant at Chicago meeting. PHYSOR 2000: Discussions cover physics, nuclear engineering education.

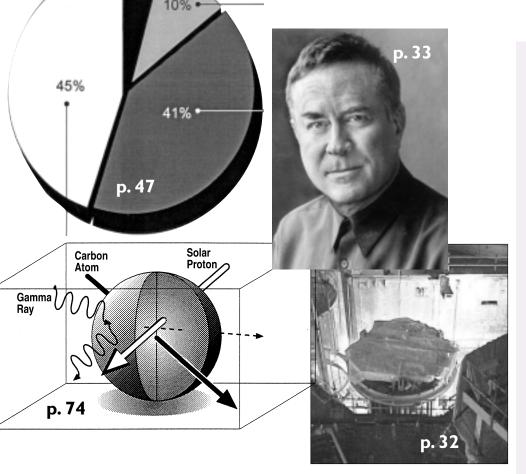
# <u>25</u> 29

30

45

54

REVIEW BY GAIL H. MARCUS



#### WASTE MANAGEMENT

South Carolina legislature passes bill forming Atlantic LLW Compact. DOE's new plan aims to improve contractor accountability. GAO: Can DOE finish cleanup work at Paducah on time, budget? U.K.'s nuclear submarine waste to be stored at land sites. Five sites selected in Australia as possible LLW repository. Perma-Fix to acquire DSSI; other business developments, contracts.

#### RESEARCH

71

74

76

83

85

67

Fire closes Los Alamos National Laboratory, destroys several buildings. DOE: Study finds no criticality risk, but suggests changes.

## **ISOTOPES & RADIATION**

Detector for commercial flights can measure cosmic radiation dose.

#### **FUEL**

*Uranium Industry Annual 1999* sums up activity, provides predictions. Study: Despite past abuses at Portsmouth, no current health risk. Canadian government to allow Cameco more foreign shareholding.

#### INDUSTRY

Partnering agreements, contracts, other business developments.

#### **STANDARDS**

ANS standards recently published, approved.

## DEPARTMENTS

Backscatter	96	11	Letters
Calendar	6	92	Literature from Suppliers
Calls for Papers	10	86	People
Employment	95	10	Recently Published
Equipment & Services	89	15	Retrospective
Index to Advertisers	81	4	Setpoint
Late News in Brief	17	10	Short Courses and Seminars

# ANS Officers

PRESIDENT James A. Lake vice president/president-elect Gail H. Marcus treasurer

Denis E. O'Brien

CHAIRMAN, ANS PUBLICATIONS STEERING COMMITTEE Robert W. Hess

# Administrative

EXECUTIVE DIRECTOR Harry Bradley

## Coming up ...

August—6th Annual Vendor/ Contractor Profile Issue October—Special Section on Nuclear Power Plant Maintenance



Nuclear News (ISSN: 0029-5574), Volume 43, Number 8. Published monthly (except during the month of March 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 \$236 for 2000; overseas subscribers

add \$51 per year for postage and handling. Single copy price is \$19; \$8 additional for overseas postage and handling (except for the Buyers Guide issue, which is \$78; \$10 additional for overseas postage and handling). Individual ANS members receive *NN* as part of membership (up to \$48 of dues allocated to *NN*). 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. POSTMAS-TER: 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 © 2000 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

Texts of most *Nuclear News* articles are available on the NEXIS data base, from Mead Data Corporation.