FEATURE ARTICLES

Scientific upgrades at the High Flux Isotope Reactor at Oak Ridge
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Nuclear energy: Why it is different, and what that difference demands of us
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POWER  25

Constellation, NRG trim new reactor spending. Focus on Finance. Four contentions admitted for Diablo Canyon license renewal hearing. Maximizing the Assets: A status report on license renewal and power uprates. NRC staff work on ABWR aircraft impact assessment amendment nears end. Areva plans to submit U.S. EPR I&C design changes by March 2011. PSEG application for early site permit at Salem docketed by NRC. Tritium detected from tank leaks at LaSalle, test well at Pilgrim. Panel urges improvement, not closure, of Vermont Yankee. Separate reactor trips occur at Point Beach-1 and -2. Roles change for Fermi-3, North Anna-3 in design-centered working groups. Levy draft EIS issued; target dates set for Vogtle EIS. Four up, two down in top two columns of Reactor Oversight Process. (Also see Call for Papers, pp. 74–75, for the 2011 ANS Annual Meeting, June 26–30, in Hollywood, Fla.)

SECURITY  34

NNSA head D’Agostino testifies on stockpile control under new Strategic Arms Reduction Treaty.

INTERNATIONAL  42

French government spurs EDF, Areva to form strategic partnership. IAEA conducts peer review of China’s nuclear regulatory system. India reaches reprocessing agreement with United States. Poland signs nuclear cooperation agreement with United States. Belarus launches program to develop Chernobyl-affected regions. New Brunswick, Canadian governments may mediate cost hikes related to Point Lepreau refurbishment. Design studies begun for new nuclear power plant in Wales. New nuclear engineering laboratory at Lancaster University. Loan agreement launches research reactor project in Jordan. WANO reelects Stricker chairman, enlarges board. Concerns over operational issues for new nuclear countries expressed at IAEA meeting.

EDUCATION, TRAINING & WORKFORCE  53

DOE awards funding to 117 students, 39 institutions. NERI, I-NERI 2009 annual reports issued by DOE.
WASTE MANAGEMENT 55
DOE inspector general says enhanced surveillance needed for Yucca Mountain project closure. NRC amends nuclear import/export regulations.

ISOTOPES & RADIATION 57
More reviews ordered for Honolulu food irradiator project. NRC report shows all 2009 abnormal occurrences were at medical facilities. Draft rule would add to source material licensing.

INDUSTRY 65
B&W to site mPower test facility in Virginia; Doosan, GE to develop turbines jointly; other news. Flowserve to make main steam isolation valves for six Chinese power reactors; other contracts.

ITER now scheduled for first plasma in November 2019. DOE laboratories win 39 of the “R&D 100” awards.

FUEL 68
“Red Book” shows uranium demand will grow, but supply will be sufficient. USEC updates loan guarantee application for the American Centrifuge Plant. Draft EIS issued for Areva’s Eagle Rock enrichment facility. New resource estimates made for Namibia mining project.

STANDARDS 71
Comments requested on draft standard.

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Coming up . . .
October—Special Section on Nuclear Power Plant Maintenance
November—Special Section on Nonproliferation
December—Special Section on Fuel

Cover: The High Flux Isotope Reactor at Oak Ridge National Laboratory provides a variety of instruments for the use of academic, industrial, and government scientists and engineers in performing neutron scattering experiments. Recent upgrades to the reactor—shown here in a view from above—have improved its neutron beam science capabilities. Turn to page 35 for details on the HFIR. (Photo: Jason Richards, ORNL)