

# Nuclear New Build In The United States



**Eric P. Loewen, Ph.D.**  
**Immediate Past President**  
**American Nuclear Society**

**European Nuclear Conference**  
**December 9, 2012**



EUROPEAN NUCLEAR SOCIETY



# The American Nuclear Society

Founded 1954

11,500+ National Members

Local Sections across US  
(and international)

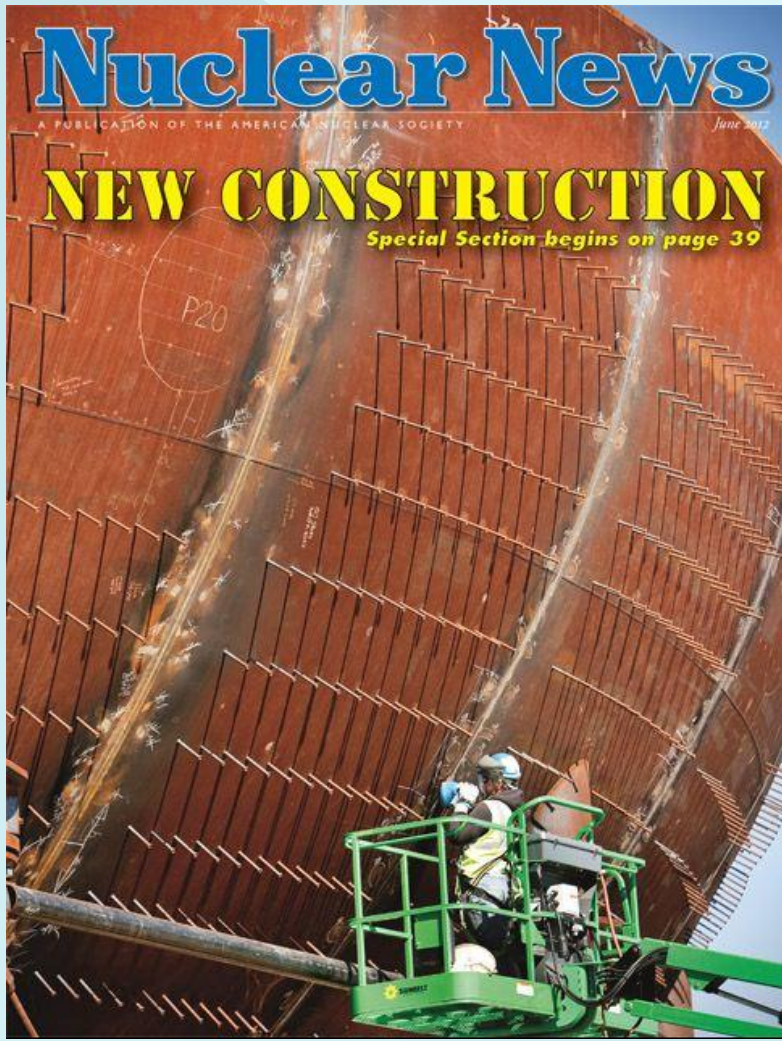
Student Sections across US and Canada

21 Professional Divisions encompassing  
the engineering disciplines and sciences

“... to advance and promote nuclear  
science and technology”



# Nuclear News and New Build



**“Entering the Era of New Reactor Construction Inspection”**

**“Renaissance Watch: Settling in with a Few New Projects”**

**“NNUMAN: Advancing Britain’s Nuclear New Build Capabilities”**

**“U.K. Energy Minister Hendry: Investing in Nuclear New-Build”**



# *Nuclear Technology and New Build*

## **NUCLEAR TECHNOLOGY<sup>®</sup>**

November 2012

an international journal of the  
**AMERICAN NUCLEAR SOCIETY**



VOLUME 180, NUMBER 2, NUTYBB 180 (2) 149-296 (2012) ISSN:0029-5450

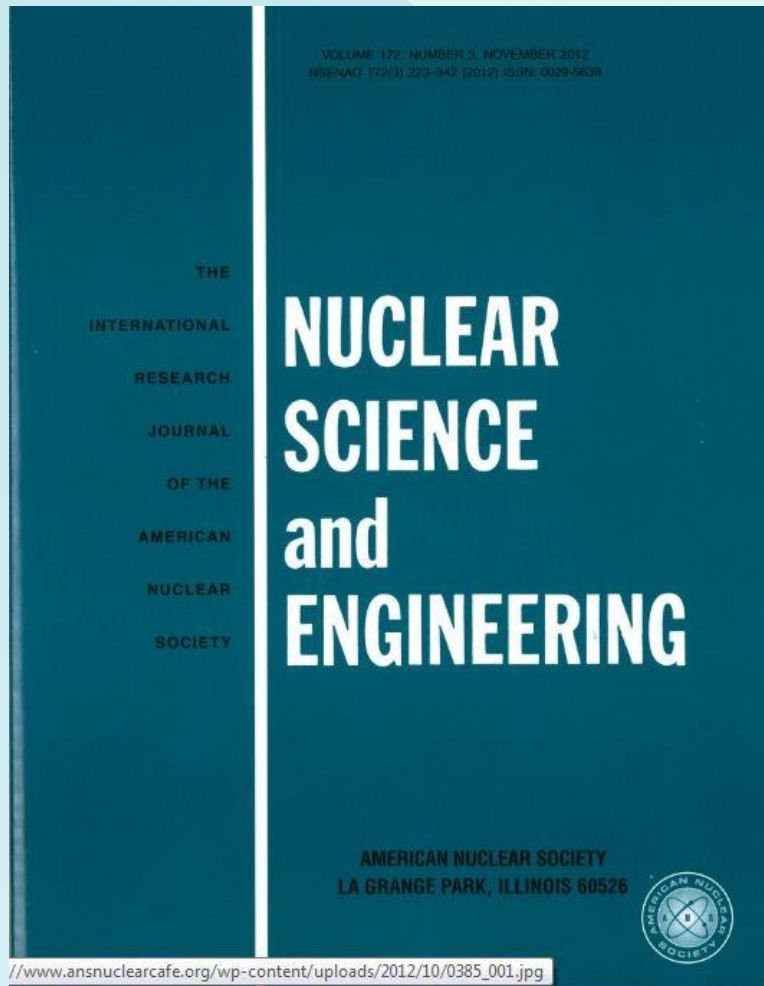
**“Experiment Optimization to Reduce Nuclear Data Uncertainties in Support of Reactor Design”**

**“Integrating Safeguards and Security into Nuclear Facility Design”**

**“Foreward: Special Issue on Small Modular Reactors”**



# *Nuclear Science and Engineering* and New Build



**“Use of Local Variation Method for Nuclear Design Calculations”**

**“Best-Estimate Predictions and Model Calibration for Reactor Thermal Hydraulics”**

**“Perspectives on Advanced Simulation for Nuclear Reactor Safety Applications”**



# *Fusion Science and Technology* and New Build

VOLUME 62, NUMBER 3, FUSTE8 (3) 375-444 (2012) ISSN: 1536-1055

## **Fusion Science and Technology**

**November 2012**

an international journal of the  
American Nuclear Society



**“MHD and Plasma Control in ITER”**

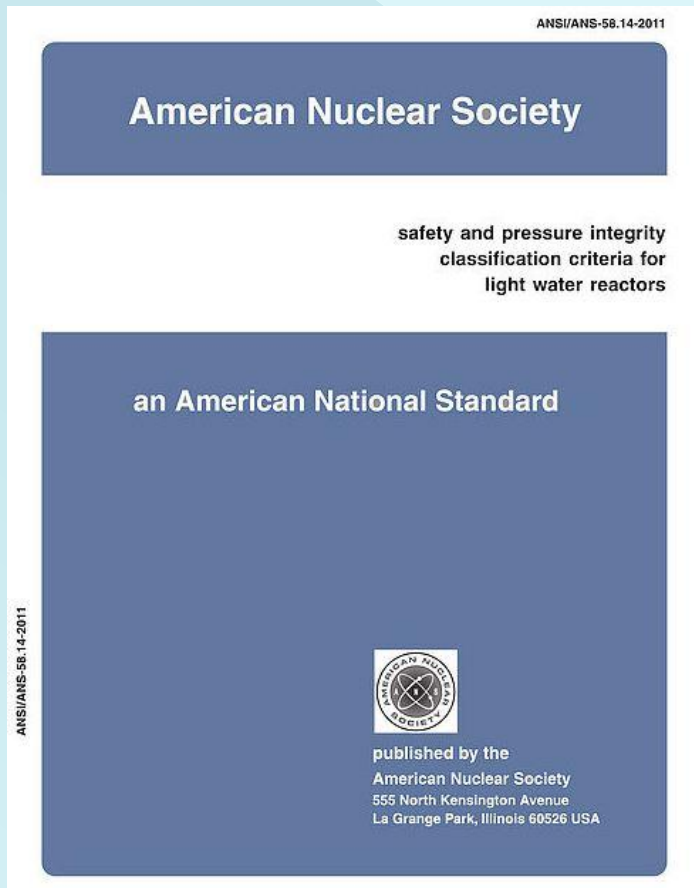
**“Physics of Plasma Control Toward  
Steady-State Operation of ITER”**

**“Plasma Facing Materials for the  
JET ITER-Like Wall”**

**“Test Results of ITER Correction Coil  
Short Samples CCCN1 and CCCN2”**



# ***ANS Standards and New Build***



**ANSI/ANS-19.1-2002 (R2011)  
“Nuclear Data Sets for  
Reactor Design Calculations”**

**ANSI/ANS-56.8-2002 (R2011)  
“Containment System Leakage  
Testing Requirements”**

**ANSI/ANS-58.9-2002 (R2009)  
“Single Failure Criteria for Light Water  
Reactor Safety-Related Fluid Systems”**

**ANSI/ANS-58.14-2011  
“Safety and Pressure Integrity Classification  
Criteria for Light Water Reactors”**

# ANS Nuclear Cafe and New Build

## ANS Nuclear Cafe

All Things Nuclear

[GUIDELINES](#)) [ADVERTISE](#) [CONTACT](#) [FUKUSHIMA](#) [JOIN](#)



[← Nuclear Matinee: Sustainable energy choices for the 21st century](#)

[98th Carnival of Nuclear Energy Bloggers →](#)

### NRC approves two new reactors in South Carolina

Posted on [March 30, 2012](#) | [5 Comments](#)

By [Laura Scheele](#)

The U.S. Nuclear Regulatory Commission on March 30 voted to clear the way for its Office of New Reactors to issue two licenses for two new AP1000 reactors at the V.C. Summer site in Parr, S.C. This marks the NRC's second approval of nuclear units to be built in the United States in two months. In February, the NRC approved a license for Atlanta-based Southern Company's [Vogtle project](#), in Waynesboro, Ga. The NRC had not issued any new reactor licenses since 1978.

The five-member commission approved the license for the Summer project in a 4-1 vote, with NRC Chairman Gregory Jaczko dissenting. Jaczko was also the [lone dissenting vote](#) for the Vogtle license. The NRC's news release on the Summer approval can be found [here](#), and the NRC staff is expected to issue the combined

“ANS Nuclear Video Matinee: Vogtle and Summer Construction Updates”

“Call to Action: Public Hearing on MOX Fuel Tonight in Chattanooga”

“NRC Issues Licenses for Southern’s Vogtle Project”

“NRC Grants Design Certification to Westinghouse AP1000”



<http://ansnuclearcafe.org>



# In The West...



**“Construction Progress at Hanford’s Waste Treatment Plant”**

**“The World’s Largest Construction Project: Designing and Constructing Hanford’s Waste Treatment Plant”**

**“Foundation pouring begins for Hanford Vit Plant”**



# In the Southeast...



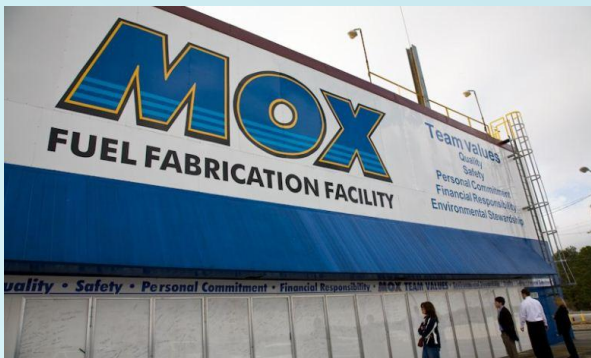
**“The NNSA’s MOX Fuel Fabrication Facility Moves Along”**



**“NRC Issues Final Safety Evaluation Report for MOX Fuel Fabrication Plant”**

**“TVA to Study Use of MOX Fuel in Power Reactors”**

**“NRC Reviews Construction Activities at Mixed Oxide Fuel Fabrication Facility”**



# In Georgia... Plant Vogtle



**“Basemat Concrete Work for New Vogtle Reactors Allowed Pending NRC Amendment Request Review”**

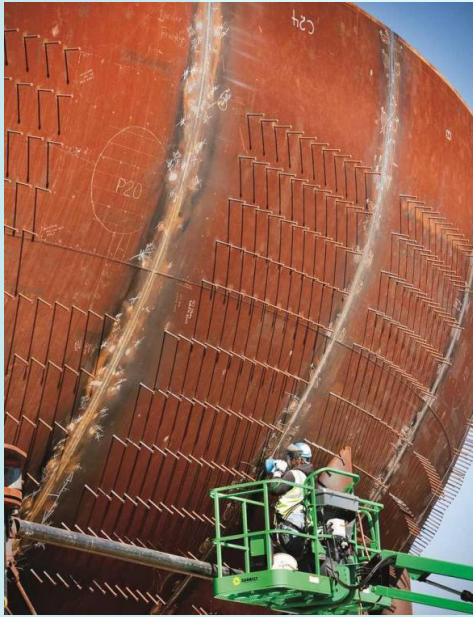
**“NRC Approves Licenses for Vogtle-3 and -4”**

**“AP1000 Certified, COL Applicants Still Waiting”**

**“Renaissance Watch: An Update on Developments That May Lead to New Power Reactors”**



# In South Carolina... V.C. Summer



**“NRC Issues Combined Construction and Operating Licenses for Two New Reactors at Summer Site”**

**“NRC Staff Sends AP1000 Final Rule Package to the Commissioners and the Office of Management and Budget”**



**“Renaissance Watch: An Update on Developments That May Lead to New Power Reactors”**



# In Conclusion...

**ANS Members Are Involved With Four Very Large Nuclear Construction Projects in the U.S.**

**U.S. Nuclear New Build Includes Over \$20 Billion in Infrastructure Additions**

**ANS Seeks to Document, Support, and Communicate Nuclear New Build in the U.S. and the World**

**ENVS**

EUROPEAN NUCLEAR SOCIETY

