#### NRC LIAISON REPORT

William Magwood and William Ostendorff were sworn in April 1 as NRC commissioners in a ceremony at the agency's headquarters in Rockville, Maryland. A third new commissioner, George Apostolakis, will be sworn in April 23, bringing NRC "to its full complement of five commissioners for the first time since 2007," the agency said in an April 1 statement. NRC Chairman Gregory Jaczko said in the statement that the new commissioners' "insights and experience will strengthen our decision making and help us to continue to meet our critical mission." Magwood, who headed DOE's Office of Nuclear Energy from May 1998 to May 2005, fills a seat on the commission Magwood, Ostendorff sworn in as commissioners.

NRC REGULATORY INFORMATION CONFERENCE MARCH 9-11 IN ROCKVILLE, MD. It was attended by 2700 from 27 countries. The poster sessions available at : <a href="http://www.nrc.gov/public-involve/conference-symposia/ric/technical-posters.html">http://www.nrc.gov/public-involve/conference-symposia/ric/technical-posters.html</a> past conference info. <a href="http://www.nrc.gov/public-involve/conference-symposia/ric/past.html">http://www.nrc.gov/public-involve/conference-symposia/ric/past.html</a>

The selection new construction resident inspectors signals the start of a new era at the agency. senior resident inspector and resident inspector for the new construction office that will open at the Vogtle site later this year. In addition, NRC named the new resident inspector for construction activities at the Tennessee Valley Authority's Watts Bar Unit 2.

Global Laser Enrichment Wraps Up Work On Test Loop Program. "Global Laser Enrichment has begun design work on a commercial uranium enrichment facility following successful testing of the technology at GE's nuclear fuel assembly plant in Castle Hayne." Silex Systems announced this week the "successful completion of the test loop program begun last summer" and "Wednesday, GE Hitachi chief executive Jack Fuller told a nuclear security conference in Washington that Global Laser 'has successfully completed early testing, in accordance with (federal) requirements." Fuller added that Global Laser is "just beginning Phase 2, where we will design the first commercial production facility." Fuller outlined the safeguards of the laser enrichment technology "acquired from Silex in May 2006, pointing out the effort was based on a previous agreement between the US and Australian governments to safeguard this process."

NRC proposes 5% increase in fiscal 2010 licensee fees The NRC said last week it will seek to recover about

\$911.1 million in fees, after billing adjustments, from licensees and applicants under the agency's proposed fee recovery rule for fiscal 2010. This represents an increase of about 5% in fee recovery over the FY-09 budget. The agency's proposed schedule of fees to recover 90% of the agency's FY-10 budget, as required by statute, was published in the March 10 Federal Register. NRC costs not charged to specific licensees are recovered through annual fees that support generic and other regulatory costs not attributable to specific licensees. The NRC said the fee increase is "mostly in response to increased activities for reactor oversight, new reactor programs, information technology support, homeland security issues, and licensing reviews for fuel facilities, non-power reactors and spent fuel storage." The agency is proposing an increase in the fee it charges for staff time to \$259 an hour, up from \$257 in the FY-09 rule. The agency said in a March 11 statement that it estimates the FY-10 fees "will be paid by licensees of 104 nuclear power reactors, 4 non-power reactors, 19 spent nuclear fuel storage/reactor-in-decommissioning facilities, 12 fuel cycle facilities, 10 uranium recovery facilities and approximately 3,150 nuclear material users."

Korea adapting APR-1400 design to European standards: South Korea is adapting the design of its APR-1400 reactor to comply with European safety standards by changing the design of the containment building and addressing concerns about severe accident mitigation, Jukka Laaksonen, director of Finland's radiation and nuclear safety authority STUK, said last week. Laaksonen said in a March 11 interview at NRC's Regulatory Information Conference in Bethesda, Maryland that changes to the APR-1400 design will include making the reactor more resistant to airplane crashes and adapting approaches to containing corium in case of a meltdown. The version of the APR-1400 design that Korea Hydro and Nuclear Power is proposing for Finland "is not like what they're building at home," Laaksonen said. "They have been looking at the European regulations and they are ready to come to the European market to make similar improvements made by other vendors." The APR-1400 is the cornerstone of South Korea's aggressive plans to expand its domestic fleet of nuclear power units and to export its nuclear energy technologies and expertise. South Korea regulators certified the APR-1400 design in 2002. The country in November 2007 held a groundbreaking ceremony for the first two units to be built with the reactor design, Shin-Kori-3 and -4.

NRC extends US EPR design review by six months; COL delays not expected: The NRC staff has extended by six months the schedule for its design certification review of Areva's US EPR, but companies considering building new units using that design said last week they do not expect the extension to delay the agency's reviews of their license applications. In its February 16 letter to Areva, released last week, NRC staff said it is "unable to complete its review" of eight chapters of the safety evaluation report, or SER, for the US EPR due to changes to the company's "previously committed schedule for providing responses to the staff's request for additional information (RAI) and new design information that [were] submitted recently." The staff said it "has completed or is in the process of completing" reviews of the other 11 chapters of the SER.

This places the seismic analysis chapter "on critical path" and extends the milestone date for completion of an SER with open items by six months, to December 2010, the staff said. Three other SER chapters — addressing the US EPR's sump design, its instrumentation and control, and a new design for fresh and spent fuel storage racks — will each be delayed by four months, due to the need to review additional information and/or design changes. The issuance date for the chapter on human factors engineering will be delayed by five months to allow the staff to review additional information. The chapters are prepared and reviewed concurrently by different branches and divisions at NRC, so the delays for each chapter are not cumulative. NRC's revised schedule for the US EPR design certification aims for review of the SER with open items by the agency's Advisory Committee on Reactor Safeguards in February 2011. The ACRS will again review the SER, this time with no open items, in October 2011. A rulemaking on the design certification, which represents its final approval by the agency, is now scheduled for June 2012.

Generic Letters: None after 2008-01 on Gas Accumulation issued in Jan 2008

#### **Information Notices Issued in 2010**

File Name	Date	Description
<u>in2010-09</u>	04/14/2010	Importance of Understanding Circuit Breaker Control Panel Indications
<u>in2010-08</u>	04/09/2010	Welding and Nondestructive Examination Issues
<u>in2010-07</u>	04/05/2010	Welding Defects In Replacement Steam Generators
<u>in2010-06</u>	02/17/2010	Inadvertent Control Rod Withdrawal Event While Shutdown
<u>in2010-05</u>	02/03/2010	Management Of Steam Generator Loose Parts And Automated Eddy Current Data Analysis
<u>in2010-04</u>	02/26/2010	Diesel Generator Voltage Regulation System Component Due to Latent Manufacturing Defect
<u>in2010-03</u>	02/03/2010	Failures Of Motor-Operated Valves Due To Degraded Stem Lubricant
<u>in2010-02</u>	01/28/2010	Construction-Related Experience With Cables, Connectors, And Junction Boxes
<u>in2010-01</u>	03/01/2010	Pipe Support Anchors Installed Improperly

## Regulatory Issue Summary

Document Number	Date	Title
RIS 10-03	02/25/2010	Licensing Submittal Information For Small Modular Reactor Designs
RIS 10-02		The Global Threat Reduction Initiative (GTRI) Federally Funded Voluntary Security Enhancements for High-Risk Radiological Material
RIS 10-01		Process For Scheduling Acceptance Reviews Of New Reactor Licensing Applications And Process For Determining Budget Needs For Fiscal Year 2012

### **Regulatory Guides Out For Comment**

Task Number	Title	Publish Date
DG-1176	Guidance for the Assessment of Beyond-Design-Basis Aircraft Impacts (ML073170252)	07/2009
DG-1178	Instrument Sensing Lines (ML080510453)	12/2008
DG-1190	Manual Initiation of Protective Actions (ML080720443)	12/2008
DG-1191	Design, Fabrication, and Materials Code Case Acceptability, ASME Section III (ML090900381)	06/2009
DG-1192	Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1 (ML090900445)	06/2009
DG-1193	ASME Code Cases Not Approved for Use (ML090900461)	06/2009
DG-1195	Availability of Electric Power Sources (ML080570075)	05/2008
DG-1199	Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors (ML090960464)	10/2009
DG-1203	Containment Performance for Pressure Loads (ML082050539)	12/2008
DG-1204	Guidance for ITAAC Closure Under 10 CFR Part 52 (ML082960039)	03/2009
DG-1211	Materials and Inspections for Reactor Vessel Closure Studs (ML082820439)	04/2009
DG-1213	Containment Isolation Provisions for Fluid Systems (ML090230478)	06/2009

DG-1215	Quality Assurance Program Requirements (Design and Construction) (ML090150402)	
DG-1217	Protection Against Turbine Missiles (ML092250316)	
DG-1220	Performance-Based Containment Leak-Test Program (ML090490183)	04/2009
DG-1221	Control of Stainless Steel Weld Cladding of Low-Alloy Steel Components (ML090750044)	06/2009
DG-1222	Control of Preheat Temperature for Welding of Low-Alloy Steel (ML090750343)	06/2009
DG-1223	Control of Electroslag Weld Properties (ML090750626)	
DG-1224	Control of the Processing and Use of Stainless Steel (ML090750744)	06/2009
DG-1226	An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis (ML091200100)	
DG-1227	An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications (ML091200294)	08/2009
DG-1229	Assuring the Availability of Funds for Decommissioning Nuclear Reactors (ML091420223)	06/2009
DG-1237	Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors (ML090080534)	05/2009
DG-1242	Service Level I, II, and III Protective Coatings Applied to Nuclear Power Plants (ML093410510)	03/2010

## **Regulatory Guides Issued**

	•		
1.40	Qualification of Continuous Duty Safety-Related Motors for Nuclear Power Plants		<u>02/20</u> 10
1.211	Qualification of Safety-Related Cables and Field Splices for Nuclear Power Plants		04/2009
1.47	Bypassed and Inoperable Status Indication for Nuclear Power Plant Safety Systems		2/2010
1.213	Qualification of Safety-Related Motor Control Centers for Nuclear Power Plants		05/2009
1.215	"Guidance for ITAAC Closure Under 10 CFR Part 52."		<u>10/2009</u>
1.100	Seismic Qualification of Electric and Mechanical Equipment for Nuclear Power Plants	3	09/2009
	Draft EE 108-5, Proposed Revision 2, published 08/1987 <u>DG-1175</u> , Proposed Revision 3, published 05/2008 <u>Staff's responses to public comments</u> on DG-1175		

### **Status of Updating Software Related Regulatory Guides**

- 1. Reg. Guide 1.169, "Configuration Management Plans for Digital Computer Software Used in Safety Systems in Nuclear Plants"
  - Work initiated in December
  - · Background research complete
  - Briefing package presenting findings and regulatory position issues to be available end of January
  - Initial draft available by the end of 2010
- 2. Reg. Guide 1.170, "Software Test Documentation for Digital Computer Software Used in Safety Systems of Nuclear Power Plants"
  - Work initiated in December
  - Background research complete
  - Briefing package provided to NRC TM on comparison of the differences between 829-1998
  - <u>Key Issue Discussed with NRC TM</u>: Base updated RG on which version of IEEE 829, the soon to be completed 2008 version or on the 1998 version?

Resolution: Since the 2008 version is nearly complete (second balloting),

proceed to develop the preliminary draft of this updated RG based upon

the 2008 version and wait until 829-2008 has been approved before

preparing the final draft of this RG.

Draft for Public Comment by Nov 2010

- 3. Reg. Guide 1.171, "Software Testing for Digital Computer Software Used in Safety Systems of Nuclear Power Plants"
  - Work initiated in December
  - Background research complete
  - Briefing package presenting findings and regulatory position issues to be available in early February for discussion with NRC TM

- <u>Key Issue Discussed with NRC TM</u>: Proceed with preparation and discussion of Briefing Package and evaluate whether to proceed on updating this RG based upon any impacts from IEEE-829-2008, from new regulations, and/or IEEE-603 since IEEE 1008-1987 has not been updated.
   Draft for Public Comment by Nov 2010
- 4. Reg. Guide 1.172, "Software Requirements Specifications for Digital Computer Software Used in Safety Systems of Nuclear Power Plants"
  - Work to be initiated in February on updating this RG
  - Initial draft available by the end of the year
  - Draft for Public Comment by Nov 2010
- 5. Reg. Guide 1.173, "Developing Software Life Cycle Processes for Digital Computer Software Used in Safety Systems of Nuclear Power Plants"
  - Work to be initiated in March on updating this RG
  - On Hold for the revision
  - Draft for Public Comment by Nov 2010

## Interim Staff Guidance Associated with Digital Instrumentation & Controls

Some links on this page are to documents in our <u>Agencywide Documents Access and Management System</u> (ADAMS), and others are to documents in Adobe Portable Document Format (PDF). ADAMS documents are provided in either PDF or Tagged Image File Format (TIFF). To obtain free viewers for displaying these formats, see our <u>Plugins, Viewers, and Other Tools</u> page. If you have questions about search techniques or problems with viewing or printing documents from ADAMS, please contact the <u>Public Document Room staff</u>.

DI&C-ISG-01	Cyber Security	
	Interim Staff Guidance on Digital Instrumentation and Control, Cyber Security, December 31, 2007	
DI&C-ISG-02 Diversity and Defense-in-Depth (D3)		

	Revision 2, Interim Staff Guidance on Diversity and Defense-in-Depth Issues, June 5, 2009 Interim Staff Guidance on Diversity and Defense-in-Depth Issues, September 26, 2007
DI&C-ISG-03	Risk-Informed Digital Instrumentation and Controls
	Interim Staff Guidance on Review of New Reactor Digital Instrumentation and Control Probabilistic Risk Assessments
DI&C-ISG-04	Highly Integrated Control Rooms – Digital Communication Systems
	Revision 1, Interim Staff Guidance on Highly-Integrated Control Rooms – Communications Issues (HICRc), March 2009 Interim Staff Guidance on Highly-Integrated Control Rooms – Communications Issues (HICRc), September 28, 2007
DI&C-ISG-05	Highly Integrated Control Rooms – Human Factors
	Revision 1 to Interim Staff Guidance on Highly Integrated Control Rooms - Human Factors Issues (HICR-HF) Interim Staff Guidance on Highly-Integrated Control Rooms - Human Factors Issues (HICR-HF), September 28, 2007
DI&C-ISG-06	Licensing Process
	Draft ISG Currently Under Revision
DI&C-ISG-07	Fuel Cycle Facilities
	Interim Staff Guidance on Digital Instrumentation and Control Systems in Safety Applications at Fuel Cycle Facilities, June 1, 2009

### Plant Applications for License Renewal

### **Completed Applications:**

(includes Application, Review Schedule, Supplemental Environmental Impact Statement, and Safety Evaluation Report)

Calvert Cliffs, Units 1 and 2

Oconee Nuclear Station, Units 1, 2 and 3

Arkansas Nuclear One, Unit 1

Edwin I. Hatch Nuclear Plant, Units 1 and 2

Turkey Point Nuclear Plant, Units 3 and 4

North Anna, Units 1 and 2, and Surry, Units 1 and 2

Peach Bottom, Units 2 and 3

St. Lucie, Units 1 and 2

Fort Calhoun Station, Unit 1

McGuire, Units 1 and 2, and Catawba, Units 1 and 2

H.B. Robinson Nuclear Plant, Unit 2

R.E. Ginna Nuclear Power Plant, Unit 1

V.C. Summer Nuclear Station, Unit 1

Dresden, Units 2 and 3, and Quad Cities, Units 1 and 2

Farley, Units 1 and 2

Arkansas Nuclear One, Unit 2

D.C. Cook, Units 1 and 2

Millstone, Units 2 and 3

Point Beach, Units 1 and 2

Browns Ferry, Units 1, 2, and 3

Brunswick, Units 1 and 2

Nine Mile Point, Units 1 and 2

Monticello

<u>Palisades</u>

James A. FitzPatrick

Wolf Creek, Unit 1

Harris, Unit 1

Oyster Creek

#### Vogtle, Units 1 and 2 Three Mile Island, Unit 1



### **Applications Currently Under Review:**

Pilgrim 1, Unit 1 - Application received January 27, 2006
Vermont Yankee - Application received January 27, 2006
Susquehanna, Units 1 and 2 - Application received September 15, 2006
Indian Point, Units 2 and 3 - Application received April 30, 2007
Beaver Valley, Units 1 and 2 - Application received August 28, 2007
Prairie Island, Units 1 and 2 - Application received April 15, 2008
Kewaunee Power Station - Application received August 14, 2008
Cooper Nuclear Station - Application received September 30, 2008
Duane Arnold Energy Center - Application received October 1, 2008
Palo Verde, Units 1, 2, and 3 - Application received December 15, 2008
Crystal River, Unit 3 - Application received December 18, 2008
Hope Creek - Application received August 18, 2009
Salem, Units 1 and 2 - Application received August 18, 2009

http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html

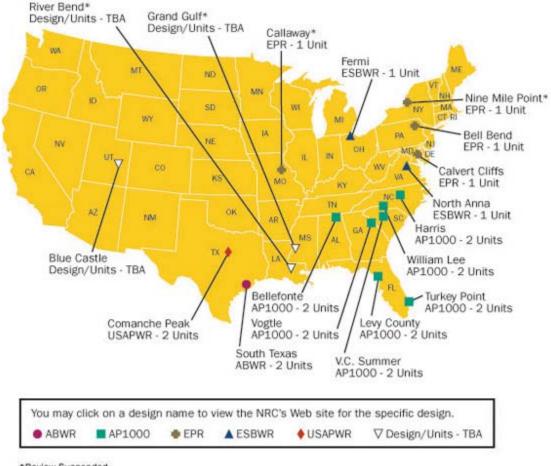
## **COL Applications Received**

The links in the table below provide information on the COL applications that the NRC has received to date. The activities associated with reviewing these applications are reflected in the individual links for docketed COL applications.

Proposed New Reactor(s)	Design	Applicant
Bell Bend Nuclear Power Plant	U.S. EPR	PPL Bell Bend, LLC
Bellefonte Nuclear Station, Units 3 and 4	<u>AP1000</u>	Tennessee Valley Authority (TVA)
Callaway Plant, Unit 2	U.S. EPR	AmerenUE
Calvert Cliffs, Unit 3	U.S. EPR	Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC
Comanche Peak, Units 3 and 4	<u>US-APWR</u>	Luminant Generation Company, LLC (Luminant)
Fermi, Unit 3	<u>ESBWR</u>	Detroit Edison Company
Grand Gulf, Unit 3	<u>ESBWR</u>	Entergy Operations, Inc. (EOI)
Levy County, Units 1 and 2	<u>AP1000</u>	Progress Energy Florida, Inc. (PEF)
Nine Mile Point, Unit 3	U.S. EPR	Nine Mile Point 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC (UniStar)
North Anna, Unit 3	<u>ESBWR</u>	Dominion Virginia Power (Dominion)
River Bend Station, Unit 3	<u>ESBWR</u>	Entergy Operations, Inc. (EOI)
Shearon Harris, Units 2 and 3	<u>AP1000</u>	Progress Energy Carolinas, Inc. (PEC)
South Texas Project, Units 3 and 4	<u>ABWR</u>	South Texas Project Nuclear Operating Company (STPNOC)
Turkey Point, Units 6 and 7	<u>AP1000</u>	Florida Power and Light Company (FPL)
Virgil C. Summer, Units 2 and 3	<u>AP1000</u>	South Carolina Electric & Gas (SCE&G)
Vogtle, Units 3 and 4	<u>AP1000</u>	Southern Nuclear Operating Company (SNC)
William States Lee III, Units 1 and 2	AP1000	Duke Energy

# Location of Location of Projected New Nuclear Power Reactors For applications that

have been received by the NRC, you may select a site name to view the NRC's website for the specific COL application. Websites for the remainder of the applications will be created when they are received.



## Issued Design Certifications

The NRC staff has issued the following design certifications:

Design	Applicant
Advanced Boiling Water Reactor (ABWR)	General Electric (GE) Nuclear Energy
System 80+	Westinghouse Electric Company
Advanced Passive 600 (AP600)	Westinghouse Electric Company
Advanced Passive 1000 (AP1000)	Westinghouse Electric Company

## Design Certification Applications Currently Under Review

The staff is currently reviewing the following design certification applications:

Design	Applicant
AP1000 Amendment	Westinghouse Electric Company
ABWR Design Certification Rule (DCR) Amendment	South Texas Project Nuclear Operating Company
Economic Simplified Boiling-Water Reactor (ESBWR)	GE-Hitachi Nuclear Energy
U.S. Evolutionary Power Reactor (U.S. EPR)	AREVA Nuclear Power
U.S. Advanced Pressurized-Water Reactor (US-APWR)	Mitsubishi Heavy Industries, Ltd.

## Issued Early Site Permits

The NRC staff has issued the following ESPs:

Site	Applicant
Clinton ESP Site	Exelon Generation Company, LLC
Grand Gulf ESP Site	System Energy Resources Inc.
North Anna ESP Site	Dominion Nuclear North Anna, LLC
Vogtle ESP Site	Southern Nuclear Operating Company

# Early Site Permit Applications Currently Under Review

The staff is currently reviewing the following ESP applications:

Site	Applicant
None currently under review	