



News Updates

- ◆ Duke Energy plans to buy Progress Energy in a stock deal valued at \$13.7 billion. Together the two companies would have 12 nuclear units at seven stations, with six units in South Carolina, five in North Carolina, and one in Florida. Nuclear power would account for about 16 percent of their combined generating capacity and about 31 percent of actual generation.
- ◆ Dominion and Mitsubishi Heavy Industries have reached an agreement to continue pre-construction, engineering and planning work in preparation for a third nuclear unit at Dominion's North Anna nuclear plant in Virginia. The engineering and planning work will continue while awaiting Dominion's decision on a construction start date, along with the US Nuclear Regulatory Commission's review of a combined construction and operating license for the new North Anna unit. Dominion expects to receive their combined operating license in early 2013.
- ◆ NRC's Atomic Safety & Licensing Board dismissed 3 of 4 remaining contentions against the proposed two reactor plant located next to the Comanche Peak nuclear plant. The ASLB panel stated that it will rule on the one remaining contention in the near future.

Combined Construction and Operating License (COL)

Summary: Eighteen COL applications have been docketed, twelve of which remain under active NRC review. NRC suspended review of five applications due to changes in technology or economic considerations; one additional application was withdrawn and resubmitted as an ESP. A total of fourteen power companies have submitted 17 license applications for 26 units. The Reference COL (R-COL) application has been submitted for four reactor designs (ESBWR R-COL is in process of being transferred to Fermi since North Anna changed to the US-APWR); the 12 subsequent COLs (S-COLs) will incorporate the corresponding R-COL application by reference, noting any site-specific departures. No COLs have been issued to date.

	UTILITY	SITE/LOCATION		REACTOR/ NO. UNITS		COLA DATES		REVIEW PHASE	
						Submitted	Docketed	Safety ⁴	Environ. ⁵
Active COL Applications	Southern Nuclear	Vogtle	GA	AP1000 ¹	2	3/08	5/30/08	Ph. 4	ESP
	STP Nuclear Operating Co.	South Texas Project	TX	ABWR ¹	2	9/07	11/29/07	Ph. 2	Ph. 4
	Luminant (TXU)	Comanche Peak	TX	US-APWR ¹	2	9/19/08	12/2/08	Ph. 2	Ph. 3
	UniStar (Constellation)	Calvert Cliffs	MD	US-EPR ¹	1	3/08	6/3/08	Ph. 1	Ph. 4
	DTE Energy	Fermi	MI	ESBWR	1	9/18/08	11/25/08	Ph. 1	Ph. 2
	Dominion Energy	North Anna	VA	US-APWR	1	11/07	1/28/08	Ph. 4	EIS Issued
	Duke Energy	William States Lee	SC	AP1000	2	12/07	2/25/08	Ph. A	Ph. 2
	Florida Power and Light	Turkey Point	FL	AP1000	2	6/30/09	9/8/09	Ph. A	Ph. 1
	PPL (UniStar)	Bell Bend	PA	US-EPR	1	10/10/08	12/19/08	Ph. B	Ph. 2
	Progress Energy	Shearon Harris	NC	AP1000	2	2/08	4/17/08	Ph. A	Ph. 2
	Progress Energy	Levy	FL	AP1000	2	7/30/08	10/6/08	Ph. A	Ph. 3
	SCE&G	V.C. Summer	SC	AP1000	2	3/08	7/31/08	Ph. B	Ph. 3
Suspended	Entergy (NuStart)	Grand Gulf	MS	Unspecified	1	2/08	4/17/08	Suspended	Suspended
	Entergy	River Bend	LA	Unspecified	1	9/25/08	12/4/08	Suspended	Suspended
	AmerenUE (UniStar)	Callaway	MO	US-EPR	1	7/24/08	12/12/08	Suspended	Suspended
	UniStar (Constellation)	Nine Mile Point	NY	US-EPR	1	9/30/08	12/12/08	Suspended	Ph. 1
	TVA (NuStart)	Bellefonte	AL	AP1000	2	10/07	1/18/08	Suspended	Suspended

¹ Reference COL Application (R-COL)

⁴Safety Review: **R-COL Ph 1** Issue RAIs **Ph 2** SER w/Open Items **Ph 3** ACRS Review **Ph 4** Advanced SER/ No OI **Ph 5** ACRS Review **Ph 6** Final SER
S-COL Ph A Issue RAIs and supplemental RAIs **Ph B** Advanced SER/ No OI **Ph C** ACRS Review **Ph D** Final SER

⁵ Environmental Review Phases: **Ph 1** Environmental Scoping Report **Ph 2** Draft EIS **Ph 3** Public comment **Ph 4** Final EIS

Reactor Design Certification (DC)

Summary: Two reactor designs that are being considered for future builds are certified; three new designs and one amendment are under NRC review.

- GE ABWR – Certified in 1997 (10CFR52 App A).
- Westinghouse AP1000 – Certified 2005 (10CFR52 App D). A modification to the certified design was docketed January 18, 2008; under NRC review with rulemaking currently scheduled September 2011.
- GE ESBWR – Under NRC certification review, application docketed December 2005; rulemaking scheduled for September 2011.

- AREVA US-EPR – Submitted December 12, 2007, and docketed February 25, 2008; rulemaking expected in February 2012.
- Mitsubishi Heavy Industries US-APWR – Submitted December 31, 2007, and docketed February 29, 2008; rulemaking expected 2012.



Early Site Permits (ESP)

Summary: Four ESPs issued; two under review:

- The following ESPs have been issued: Exelon – Clinton (IL), 3/15/07; Entergy – Grand Gulf (MS), 4/5/07; Dominion – North Anna (VA), 11/ 27/07; Southern – Vogtle site (GA), 08/26/09.
- On March 25, 2010, Exelon submitted an ESP application for its Victoria County site. This replaces a COL withdrawn July 2009.
- PSEG submitted an ESP application for its nuclear plant site in Salem County, New Jersey, on May 26, 2010, which was docketed August 4, 2010
- Duke notified NRC of two possible ESP applications at Oconee County (SC) and/or Davie County (NC); no dates provided.

New Nuclear Plant Orders

Summary: Four plant construction contracts have been initiated; nine power companies have ordered large component forgings from three reactor vendors for potential nuclear plants; one vendor ordered other large equipment; two vendors are building large fabrication facilities.

Long-Lead Equipment Orders: Large forging orders initiated by AREVA, GE-Hitachi, Toshiba and Westinghouse; Westinghouse has also ordered reactor coolant pumps and containment liner plates.

- Progress, SCE&G, and Southern have contracted with Westinghouse for long-lead component forgings.
- Entergy and Exelon have contracted with GE-Hitachi for long-lead component forgings.
- AmerenUE and UniStar have contracted with AREVA for long-lead component forgings.
- NRG Energy signed an agreement with Toshiba for long-lead component forgings.
- Japan Steel Works, currently the only ultra-large forging vendor worldwide, is expanding capacity; AREVA, Doosan, BWXT, and Russia's Uralmash-Izhora Group (OMZ) are among those reportedly developing large forging capabilities.
- Areva and Northrop Grumman have begun to build a facility in Newport News, Virginia, to manufacture heavy components for the EPR, scheduled to begin production in 2013
- Shaw and Westinghouse built a 410,000-square-foot facility at the Port of Lake Charles, Louisiana, to produce structural, piping, equipment, and other modules for the AP1000 technology.

Plant Construction Contracts: Engineering, Procurement, and Construction (EPC) contracts signed for four plants; a term sheet for a future EPC contract has been signed for one plant.

- Southern Nuclear with Westinghouse and Shaw Group for two AP1000s at Vogtle.
- Progress Energy with Westinghouse and Shaw Group for two AP1000s at Levy County.
- SCE&G and Santee Cooper with Westinghouse for two AP1000s at V.C. Summer.
- STPNOC with Toshiba for two ABWRs at South Texas Project.
- AREVA has signed a term sheet with Bechtel for one EPR at Calvert Cliffs.
- TVA has signed a contract with AREVA for Engineering and Development to complete construction of Bellefonte Unit 1.

New Plant Construction, Operation, Deferral

Summary: Site preparatory work is in progress for Vogtle, V.C. Summer, Calvert Cliffs, and South Texas nuclear projects. TVA proceeding towards completion of legacy plants at Watts Bar and Bellefonte.

New Nuclear Plants under Construction: The NRC issued a Limited Work Authorization to Southern Nuclear Operating Company for the Vogtle nuclear plant site near Augusta, Georgia. TVA resumed construction-related activities at two mothballed sites.

- Safety-related construction for Vogtle began March 2010 with placement of engineered backfill in accordance with the Limited Work Authorization.
- Watts Bar 2, near Spring City, Tennessee, resumed at a total cost of \$2.5 billion with an estimated completion date of 2013.
- Construction permits have been reinstated for Bellefonte Units 1 and 2 near Scottsboro, Alabama; the TVA Board approved \$248 million for Unit 1 construction and awarded engineering contract to Areva.
- Construction of some reactor designs to be built in the US is underway in other countries: four AP1000s in China, two APWRs in Japan, one EPR in Finland and another in France; four ABWRs are in operation in Japan and two are nearing completion in Japan and Taiwan.

New Nuclear Plant Begin Operation: None.

Deferred: None.

Federal Financial Incentives

Summary: EAct 2005 incentives are at various stages of development: two rules issued and one notice published.

Standby Support: Rule issued, no contract issued.

- Final Rulemaking Issued August 2006.

Production Tax Credits: Notice issued.

- Internal Revenue Bulletin 2006-18 published May 2006.
- Treasury/IRS may issue additional guidance on Tax Credits for new nuclear plants; however, a date has not been set.

Nuclear Energy Facility Loan Guarantees: Congress granted DOE authority to issue \$20.5 billion in guaranteed loans.

- DOE issued solicitations for \$18.5 billion in loan guarantees for new nuclear power facilities and \$2 billion for the "front end" of the nuclear fuel cycle on June 30, 2008.
 - DOE offered a \$2 billion loan to AREVA for an enrichment plant.
 - DOE and Southern have reached a deal on a conditional commitment agreement for \$8.33 billion in loan guarantees for the construction and operation of two AP1000 reactors at Vogtle
- Due to the current limited guarantee authority, DOE has narrowed the remaining power facilities under consideration for loan guarantees to three applicants, which are planning to build a total of five reactors.