



News Updates

- ◆ TVA signed a contract with AREVA on October 4 for Engineering and Development of TVA's Bellefonte Unit 1 Nuclear Plant. On September 29, TVA requested that NRC defer review of the COL application for Bellefonte Units 3 and 4. Previously, on August 20, TVA approved \$248M toward engineering and site preparation for restart of Bellefonte Unit 1.
- ◆ Alternate Energy selected Payette County on August 10 as their sole Idaho nuclear site, terminating proceedings in Elmore County.
- ◆ NRC docketed PSEG's ESP application for a site adjacent to their Salem and Hope Creek reactors in New Jersey on August 6.
- ◆ NRC invited public input on the Draft Environmental Impact Statements (DEIS) for Comanche Peak, Levy, and Vogtle COLAs and announced public meetings scheduled September 21, September 23, and October 7, 2010, respectively.
- ◆ NRC established Atomic Safety and Licensing Boards (ASLBs) for Comanche Peak and Turkey Point in response to petitions filed by interveners; an ASLB will hear arguments for STP October 21.
- ◆ Westinghouse awarded GSE Systems two AP1000 simulator contracts: for Vogtle on July 30, and V.C. Summer on September 23

Combined Construction and Operating License (COL)

Summary: Seventeen COL applications have been docketed, thirteen of which remain under active NRC review. NRC suspended review of four applications due to changes in technology or economic considerations; one additional application was withdrawn and resubmitted as an ESP. A total of nineteen companies, of which two remain unidentified, have submitted or intend to submit 24 license applications for approximately 36 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 17 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. 2
	TVA (NuStart)	Bellefonte	AL	AP1000	2	10/07	1/18/08	Ph. 1	Ph. 2
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
Planned COL Applications	Alternate Energy	Payette County	ID	TBD	2	2011 (2 nd Quarter)		N/A	
	Alternate Energy	Pueblo, Colorado	CO	TBD	2	2012 (2 nd Quarter)		N/A	
	Southern Nuclear	Unspecified, greenfield	-	Unspecified	1	2011		N/A	
	Transition Power	Blue Castle	UT	Unspecified	1	2011		N/A	
	Unidentified Utility 'A'	Unspecified	-	Unspecified	1	2011		N/A	
Unidentified Utility 'B'	Unspecified	-	Unspecified	1	2011		N/A		

¹ Reference COL Application (R-COL)

⁴ Safety 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 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. **Advanced SER status: 58% (11 of 19 chapters complete)**
- GE ESBWR – Under NRC certification review, application docketed December 2005; rulemaking scheduled for September 2011. **Advanced SER status: 86% (19 of 22 chapters complete)**
- 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 COLA, 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 vessels.

- 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 plan to build a facility near Lake Charles, Louisiana, to fabricate AP1000 structural and equipment modules.

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: Limited site preparatory work has been initiated 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; 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, planning to build a total of five reactors.