



## LICENSING

# Callaway, Levy applications submitted

AS JULY ENDED, the workload of the Nuclear Regulatory Commission's Office of New Reactors increased again, with the submission of two more applications for combined construction and operating licenses (COL) for new power reactors. AmerenUE's July 28 application for a U.S. EPR pressurized water reactor at the Callaway site in Missouri, and Progress Energy's submittal two days later for two AP1000 PWRs at a site in Levy County, Fla., gave the NRC 11 applications for 18 reactors, in various stages of the review process. The first step for the newest arrivals is the acceptance review, in which the NRC staff determines whether the applications contain sufficient information for them to be placed on the agency's docket and put through detailed technical reviews. The acceptance reviews could be completed by early October.

While the U.S. EPR—Areva's Generation III+ model based on the EPRs being built in Finland and France—is being offered on the U.S. market through UniStar Nuclear Energy (a Constellation Energy and EDF company), AmerenUE's plan is not to be a passive investor in a UniStar-run project. Callaway-2 would be owned and operated by the St. Louis-based utility, with small shares of the plant perhaps being sold

*The tenth and eleventh requests for licenses for new power reactors arrived at the Nuclear Regulatory Commission in late July.*

to other utilities in the region, and all licensee responsibility would be held by AmerenUE.

UniStar assisted in the preparation of the COL application for Callaway-2, which is the first subsequent COL (S-COL) application for the U.S. EPR, within the NRC's preferred approach of design-centered licensing reviews. The reference COL (R-COL) for the U.S. EPR is UniStar's Calvert Cliffs-3 project, for which the acceptance review was completed in June. Issues that are resolved on an R-COL are automatically resolved on an S-COL that replicates that part of the application, and UniStar maintains that the U.S. EPR will be the most standardized reactor model of all. It appears, however, that even if AmerenUE follows UniStar's lead in the NRC process, AmerenUE does not intend to embrace the full extent of UniStar's standardization, whereby UniStar would also operate the plant.

AmerenUE also hopes to qualify for as many of the incentives in the Energy Poli-

cy Act of 2005 (EPAct)—loan guarantees, production tax credits, and risk insurance—as it possibly can. By one reading of EPAct, Callaway-2 would be eligible as the second project of one of the first three new reactor models. The incentives were intended to encourage the first few projects, which might bear more of the expense involved in first-of-a-kind engineering than later projects would. It remains uncertain when this early-adopter status would be determined—perhaps when a COL is awarded, or when safety-related construction begins.

AmerenUE has arranged with UniStar for the procurement of long-lead-time items for Callaway-2, including ultra-heavy forgings for the major plant components, but has made no firm commitment to buy, build, or operate a new power reactor. If it is built, the 1600-MWe U.S. EPR would join the operating Callaway-1, a Westinghouse-designed 1228-MWe PWR, at the site near Fulton, Mo.

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Progress Energy's Levy project may not be as well-positioned as Callaway-2 to maximize its federal incentives, as it is the sixth AP1000 project for which a COL application has been submitted, and the second by Progress itself. But Progress's Harris-2 and -3, in North Carolina, have a longer planning horizon despite the earlier submission date (this past February), with reactor startup foreseen in about 2018–2020. The Levy units are planned for commercial operation in 2016 and 2017.

Levy, however, is the first new reactor project to use a greenfield site that has never before gone through any NRC review process. All of the other COL projects to date are either sited with operating reactors

or use land from canceled projects that had been approved by the NRC for reactor construction. The site in Levy County is about eight miles from Progress Energy's Crystal River-3 reactor and would use the same source of cooling water, but it has not undergone any NRC approval process before now.

The Florida Public Service Commission has already issued a determination of need for the Levy project, and Progress Energy submitted a request in June for a site certification application from the Florida Department of Environmental Protection. A decision on that request is expected next year. The COL, meanwhile, could be approved in 2012, but because no project has

yet been licensed under the NRC's process in 10 CFR Part 52, any such target date is speculative.

Also, while Progress has expressed interest in moving ahead with the commercial side of the project, the company has not yet announced the signing of an engineering, procurement, and construction contract with the AP1000's designer, Westinghouse Electric Company, for either Levy or Harris-2 and -3. The only EPCs signed to date for new reactors are for Southern Company's Vogtle-3 and -4 and SCANA's Summer-2 and -3, and in both cases the customers insist that they have still not firmly committed to building any new reactors.