



Plant sites shown in map are highlighted in news stories in this section

## EARLY SITE PERMITS

# Utilities have new reactor sites in mind

**W**ITHIN MONTHS, THE nuclear industry should have tangible evidence that the road to new reactor construction is being paved. Three utilities—Dominion, Entergy, and Exelon—have indicated that they are preparing to submit early site permit (ESP) applications to the Nuclear Regulatory Commission. Once reviewed and approved by the NRC, the ESPs would allow the utilities to “bank” sites for possible new plant construction down the road.

Exelon, in a March 1 letter, informed the NRC that it would advise the agency by June 30 of a site selected, and it anticipated submitting an application by June 2003.

A second utility, Entergy, has had ESP discussions with NRC staffers, but has not officially targeted a date for submitting an application, according to Jim Lyons, director of the New Reactor Licensing Project Office, in the NRC’s Office of Nuclear Reactor Regulation. Lyons said, however, that NRC staffers who attended an ESP “status report” meeting on April 1, during which representatives of Entergy, Exelon, Dominion, and the Nuclear Energy Institute were present, learned that Entergy intended to submit an ESP application in June 2003, with a site to be identified within two to three weeks of the April 1 meeting.

*Early site permits approved by the NRC will allow utilities the flexibility to expand later without committing to building plants now.*



**North Anna:** Possible site for a new Dominion reactor

*Continued*

A third utility, Dominion, on April 1 officially notified the NRC that it intends to submit an application in the fall of 2003.

Dominion also became the first utility to designate a site—the North Anna nuclear plant site, in Mineral, Va., currently home to a pair of Westinghouse pressurized water reactors—as the basis of the ESP application. Designating a site, however, does not commit a utility to building a new reactor there, a Dominion spokesperson said. “Dominion’s interest in the early site process should not be interpreted as a signal of intent by the company to build a new nuclear power plant. The company has no plans to do this. What we are doing is participating in an industry effort . . . to demonstrate the early site permitting process, which had never been tested before,” the spokesperson said.

The ESP, in addition to permitting a utility to “bank” a site, allows the utility to do environmental reviews, site safety reviews, and emergency preparedness reviews, all of which the NRC later would verify for regulatory compliance.

Lyons said that no timetable exists for the NRC’s completion of an ESP review once a utility submits an application. “We’re trying to put together some templates,” he said. “[The ESP review] is something that

we’ve never done before. We’re trying to put together our schedule.”

During the April 1 meeting between the NRC and the industry, utility representatives indicated that they were looking for an approximate 18-month turnaround of the NRC’s ESP review, but, Lyon said, “I don’t know if we can do [the reviews] that quickly.”

Compiling and reviewing an ESP application could cost about \$9 million, according to industry estimates. Some of that cost could be subsidized by a grant from the Department of Energy, through its Nuclear Power 2010 program (*NW*, Mar. 2002, p. 17). Dominion, Entergy, and Exelon indicated that they would apply for the grants, which will total \$3 million to each of one or more utilities in fiscal year 2002 to defray costs associated with the ESP process.

While approval of an application does not commit a utility to building a new plant, receipt of ESP approval becomes “an asset” that a utility could “use, trade, [or] sell,” Lyons said. “It is saying that we, at the NRC, approve that a nuclear power plant can be built on that site.” All three utilities indicated that receiving ESP approval would allow them flexibility to expand generation later, without having to commit now to building new reactors.

To actually build a new plant on a site that is ESP approved, a utility also would probably select a reactor design already certified by the NRC and would have to obtain a combined construction permit and conditional operating license from the NRC.

Lyons said the DOE is hoping that utilities demonstrate the ESP process for different types of sites. “Right now, the thinking is that the best way to [acquire ESP approval] is to work at an existing nuclear site, especially one like North Anna that was already envisioned to have additional reactors,” he said. The North Anna site has “an infrastructure there, down to transmission lines coming into the site,” Lyons added.

The DOE also would like to see review of a “green field” site, one that does not have an existing facility on it. This sort of site would be the most difficult to gain ESP approval for, Lyons said.

A third type of site is called a “brown field” site. “DOE characterizes that as an existing industrial facility that has already been disturbed environmentally,” Lyons said. “There might already be an existing infrastructure there. It might be at a non-nuclear power generating facility or something like that.”