A PUBLICATION OF TEXAS LAWYER
ENERGY LAWYER
MAY 18, 2009 • SECTION 2 • VOL. 25 • NO. 7
www.texaslawyer.com
An incisivemedia publication

Nuclear Power's Next Wave

BY JON WOOD

Energy and environmental concerns of the 21st century are fostering a renaissance of interest in nuclear power as a means of meeting projected energy demands in the United States. After decades without the filing of an application for construction of a nuclear power plant, as of March 9, the Nuclear Regulatory Commission (NRC) had received applications to construct 26 new nuclear power reactors.

The renewed interest can be attributed to a number of factors, including:

- global climate change and air pollution concerns associated with the fossil fuels used to generate electricity;
- government incentives, including potential loan guarantees and production tax credits;
- new NRC licensing and design certification procedures; and
- the demonstrated strong performance of the nation's existing nuclear fleet, which continues to provide low-cost energy with superior reliability.

For now, all of these factors outweigh the negatives associated with high initial capital cost and lack of long-term waste disposal alternatives for high-level radioactive waste.

Of course, nuclear generation still has its critics (including well-funded and well-organized environmental activists). But new licensing procedures offer defensive strategies not previously available to licensing practitioners that will affect the legal strategies used to complete NRC licensing, a process that can take years to complete.

A significant advantage for nuclear initiatives is provided by the NRC's licensing procedures for the construction of nuclear generation (10 CFR Part 52). Although these regulations technically have been on the books since 2007, nuclear regulatory lawyers consider them to be new because the NRC finally is applying them for the first time to this recent surge of NRC applications. Accordingly, lawyers are watching the NRC to learn how it will interpret these regulations so they can develop legal strategies for shepherding licensing applications through the NRC's approval process.

Under the new procedures, an advanced design certification process allows the NRC to resolve design-related safety and technical issues up to 15 years in advance, prior to the filing of an application to construct or operate a plant. An early site permit (ESP) process allows the NRC to approve a site for a nuclear power plant before a decision is made to build the plant, and a company may "bank" approved sites for up to 20 years.

To address the issue of a plant's conformance to the requirements of the license, the inspections, tests, analyses and acceptance criteria (ITAAC) that will be used to assess a completed plant are agreed to during the design certification process and in the combined license.

Also, under the new combined construction and operating license (COL) procedure, all issues resolved in the certified design and ESP processes are considered resolved for purposes of the COL proceeding, thus streamlining approval to operate at a specific site.

The new procedures also are expected to reduce construction and other costs by resolving design, site and safety-related issues before significant dollars are committed to a project, in contrast to past procedures.

In the past, plants were constructed under a preliminary design, and safety and technical issues were not fully resolved until after construction. This created uncertainty as to the ultimate ability to operate. As a result, licensing proceeding intervenors could raise design-related safety and technical contentions near the end of the construction period, sometimes prolonging the licensing process and delaying operation commencement.

With the new procedures, however, licensing opponents must raise these issues early

in the licensing process or risk foreclosure of their claims. For licensing practitioners, it is beneficial to identify and address design issues early and to take full advantage of the procedural protections that allow a plant to operate upon completion, if it is built according to the approved design and meets the agreed-upon ITAAC process.

Climate, environmental, and reliability and cost-related considerations have resurrected nuclear energy as a viable alternative for 21st-century energy needs in the United States. New licensing procedures effectively narrow the focus and timing affecting protests of licenses and, if proactively utilized by nuclear advocates, provide defenses to protests not available in the past. Congress' incentives and regulatory innovations aimed at correcting licensing difficulties of the past should aid the resurgence of this critical energy resource. EL

Jon Wood is a shareholder in Cox Smith Matthews in San Antonio and the general counsel of STP Nuclear Operating Co., which operates a two-unit nuclear plant in Matagorda County. Members of Cox Smith's energy department contributed to this article.