

SOUTH TEXAS PROJECT

Commissioners authorize new reactor licenses

Nuclear Innovation North America plans to hold the licenses for the two Toshiba ABWRs until market conditions support construction.

In a memorandum and order issued on February 9, the Nuclear Regulatory Commission authorized its staff to issue combined operating licenses (COL) to Nuclear Innovation North America (NINA) for two 1,350-MWe Toshiba ABWR boiling water reactors to be built at the South Texas Project site near Palacios, Texas, where two pressurized water reactors are now in operation. According to the NRC, the staff “will work to issue the COLs promptly,” but NINA is in no hurry to start building. Like DTE Electric, which received a COL last year for Fermi-3 in Michigan, NINA will be a license “holder” for the foreseeable future, awaiting improvements in electricity market conditions before going ahead with construction.

For much of the time that it has existed, the South Texas-3 and -4 project has seemed like a long shot, if for no other reason than its inception as a merchant venture in an unregulated market. The upfront costs of nuclear power are generally thought of as easier to bear by rate-regulated utilities with clearly defined (and probably very large) service areas. NRG Energy, a New Jersey-based merchant operator, bought Texas Genco’s 44 percent share of STP Nuclear Operating Company in 2006, effectively taking control of South Texas-1 and -2. The following year, NRG submitted its application for the COLs. At that time, economic conditions appeared to favor construction of new power reactors in many locations in the United States.

Since then, the deep recession of 2008, and the emergence of the technique of fracking to release large quantities of natural gas at low cost, dimmed the prospects for many (but not all) of the new re-

actor initiatives in the United States. The Fukushima Daiichi accident in Japan in 2011 did not deter the licensing and construction of Vogtle-3 and -4 in Georgia or Summer-2 and -3 in South Carolina, but it dealt a severe blow to South Texas-3 and -4. Fukushima Daiichi’s owner, Tokyo Electric Power Company, had signed on to invest in South Texas, but the company withdrew after the accident.

Even before Fukushima, NRG had been reducing its financial commitment to the new reactors. NINA, a joint venture of NRG and reactor vendor Toshiba, took over as the license applicant, and before long, Toshiba started covering all of the project’s costs. Despite the ownership arrangement of NINA, it was charged that Toshiba’s bankrolling made the project foreign controlled and therefore out of compliance with NRC regulations. Even the NRC staff took this view during the contested licensing hearing.

Yet, somehow, the project survived. The Atomic Safety and Licensing Board ruled that the ownership situation was not a deal-breaker, and this closed the contested hearing with resolution in NINA’s favor. The use of Toshiba’s ABWR design, instead of the General Electric design that had been certified originally, was made possible in a separate certification process. During and after the mandatory hearing last November, planning for revised foreign ownership regulations and statements made by NINA officials on financial assurance prior to construction and operation satisfied the commissioners.

Mark McBurnett, NINA’s chief executive officer, stated the following in response to an inquiry from *Nuclear News*: “While we strongly believe that new nu-

clear generation is essential to addressing carbon and climate change, current low gas prices and Texas electric market economics do not support starting construction.” He also stated that NINA has no problem with the commissioners’ license condition, which calls for reactor capsule withdrawal testing in accordance with the schedule provided in ASTM Standard E

185-82, rather than on NINA’s proposed schedule. (Many other license conditions have been developed by the staff.)

If economic conditions did favor immediate construction, NINA would still face the situation of needing to obtain outside financing. South Texas-3 and -4 had, at one point, received a term sheet for a loan guarantee from the Depart-

ment of Energy, and NINA has hoped to use such a guarantee to attract investors. Even if that were to work out, DOE guarantees for new reactors have proven to be extremely difficult to secure. The only one that has become a closed deal was for Vogtle-3 and -4, and only after years of processing and negotiation.—*E. Michael Blake*