NRC To Begin Full Certification Review of NuScale Small Modular Reactor

The Nuclear Regulatory Commission has docketed for review NuScale Power LLC’s application to certify the company’s small modular reactor design for use in the United States.

The company submitted its application Jan. 12 for the design, in which the reactor building holds 12 co-located pressurized-water reactor modules for a total output of 600 MWe. NuScale is the first company to submit a small modular reactor design for certification. SMR designs seek to meet NRC safety requirements through smaller reactor cores and passive safety features. The NRC, after completing its acceptance review, has concluded NuScale’s application is complete enough for a full design certification review. The staff soon will provide a review schedule.

The NRC’s certification process determines whether a reactor design meets U.S. safety requirements. Companies can then reference a certified design when applying for a Combined License to build and operate a reactor in the United States. The NRC’s Advisory Committee on Reactor Safeguards provides input on design certification reviews. If issued, certifications are valid for 15 years. The NRC has most recently certified Westinghouse’s AP1000 and GE-Hitachi’s Economic Simplified Boiling Water Reactor designs.