NRC To Issue Rule Certifying NuScale Small Modular Reactor

The U.S. Nuclear Regulatory Commission has directed the staff to issue a final rule that certifies NuScale’s small modular reactor design for use in the United States. The certification’s effective date is 30 days after the NRC publishes the rule in the Federal Register.

NRC certification means the design meets the agency’s applicable safety requirements. An application for a nuclear power plant combined license that references a certified design will not need to address any of the issues resolved by the design certification rule. Instead, the combined license application and the NRC’s safety review would address any remaining safety and environmental issues for the proposed nuclear power plant. The design certification approves the NuScale reactor’s “design control document,” which is incorporated by reference in the final rule.

NuScale submitted an application to the NRC on Dec. 31, 2016, to certify the company’s small modular reactor design for use in the United States. The NRC staff met its schedule goals for completing its technical review. The design uses natural, “passive” processes such as convection and gravity in its operating systems and safety features, while producing up to approximately 600 megawatts of electricity. The SMR’s 12 modules, each producing 50 megawatts, are all submerged in a safety-related pool built below ground level.

The NRC has previously certified six other designs: the Advanced Boiling Water Reactor, System 80+, AP600, AP1000, the Economic Simplified Boiling Water Reactor and the APR1400. More information about the NuScale design review can be found on the NRC’s website.