SECTION A. Project Title: NuScale SMR Design Development and Certification Project

SECTION B. Project Description

NuScale Power, LLC proposes to obtain Nuclear Regulatory Commission (NRC) design certification (DC) for a small modular reactor (SMR) on a timetable that can support deployment of the NuScale design for a commercial operation. Activities include design, engineering, analysis, and testing efforts needed to develop a complete SMR design to a degree necessary to demonstrate a conclusive safety basis for the design certification (DCA).

SECTION C. Environmental Aspects / Potential Sources of Impact

Chemical Use/Storage / Chemical Waste Disposal / Hazardous Waste Generation / Industrial Waste Generation – We will be procuring the fabrication of certain equipment for prototypical testing, and other related activities. This fabrication and testing will likely result in the generation of chemical and industrial waste and use and disposal of various conditioning chemicals. We do not expect the amounts of these chemicals to be significant, and would be used, controlled and disposed of in accordance with the service-provider's then existing chemical control program(s). We will not know with precision the amounts of the waste possibly created until we plan and procure the equipment and services. The planning for this work will occur in 2014, and the commencement of work will begin as early as late 2014.

Water/Well Use – Work under this proposal will involve thermal hydraulic testing conducted at laboratory facilities in Oregon (OSU NIST Facility) and Italy (SIET), and other laboratories and test facilities as may be identified during the course of our program. Each lab during the course of performing these tests will likely use approximately several hundred gallons of water.

Discharge of Wastewater – Water used in connection with the activities described in item 14 will likely be discharged to public municipal waste water systems in accordance with test facility protocol.

SECTION D. Determine the Level of Environmental Review (or Documentation) and Reference(s): Identify the applicable categorical exclusion from 10 CFR 1021, Appendix B, give the appropriate justification, and the approval date.

Note: For Categorical Exclusions (CXs) the proposed action must not: 1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, including requirements of DOE orders; 2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities; 3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; 4) adversely affect environmentally sensitive resources. In addition, no extraordinary circumstances related to the proposal exist which would affect the significance of the action, and the action is not "connected" nor "related" (40 CFR 1508.25(a)(1) and (2), respectively) to other actions with potentially or cumulatively significant impacts.

References: B3.6 Siting, construction, modification, operation, and decommissioning of facilities for small-scale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial development.

Justification: The activity consists of design, engineering, and analysis as well as some minor R&D to obtain the necessary information to submit a complete SMR license application to NRC.

Is the project funded by the America	an Recovery and Reinvestment	t Act of 2009 (Recovery Act)	🗌 Yes 🛛 No
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Approved by Jack Depperschmidt, DOE-ID NEPA Compliance Officer on 01/22/2014