NuScale Power Inc
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January 23, 2008

Document Control Desk
ATTN: R. W. Borchardt
Office of New Reactors
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Pre-Application Request for Design Approval of NuScale Reactor

Dear Mr. Borchardt:

NuScale Power requests a pre-application review for the its reactor design. The NuScale plant, described in previous publications as the "Multi-Application Small Light Water Reactor", or "MASLWR," is a small light water reactor which produces 150 MWt with an electrical output of 45 MWe and is entirely cooled by natural circulation. The plant is well suited to meet needs for electricity generation both in remote isolated locations and conventional domestic large electrical grids where individual units can be coupled together in a multi-module operation. The company is currently engaging with potential customers who are interested in its unique combination of simplicity, inherent safety, and economics.

The purpose of the pre-application review will be to familiarize the NRC with the NuScale plant design, operation, and its inherent safety features. It should also serve to facilitate a dialogue with the NRC aimed at tailoring the review and approval process to the unique features of this design.

The NuScale plant was developed jointly by Oregon State University, the Idaho National Engineering and Environmental Laboratory and Nexant, Inc under a project funded by the Nuclear Energy Research Initiative (NERI) of the U.S. Department of Energy. As part of this effort, a fully integrated one-third scale, electrically heated test facility was built to confirm the basic design and test various safety performance conditions. That study was completed in 2003 and results were published in a final report. Since then, Oregon State University has continued to develop the design and has made a number of proprietary improvements.

NuScale Power Inc. was established in 2007 for the purpose of commercializing this design. All rights to the technology and use of the supporting test facility were transferred to NuScale Power Inc. by Oregon State University pursuant to a Technology Transfer Agreement in November 2007.

We propose to begin the pre-application review with a series of meetings aimed at familiarizing the NRC Staff with the plant design and its safety features. An initial introduction to the plant design would be followed by a series of more detailed meetings discussing safety analysis, core and fuel design, seismic issues, and PIRT (Phenomena Identification and Ranking Table) development. During these meetings we would also discuss the results of a preliminary Probabilistic Risk Assessment, important initiating events, and a proposed test plan using our existing integral test facility for certification of the NuScale design. Finally, we intend to use these meetings to facilitate policy guidance discussions with the NRC as they relate to new and unique issues raised by a small reactor design. We expect the pre-application review to require 18-24 months, with formal submittal of an application for review and approval of the design planned for 2010.

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NRO
Add: R.W. Borchardt

The purpose of this letter is to notify the NRC of our readiness to begin pre-application reviews sometime in August 2008. Please let us know the feasibility of completing pre-application interactions in the timeframe discussed above. You may contact me directly regarding this request.

We appreciate your consideration and look forward to hearing from you.

Sincerely,

Paul Lorenzini
Chief Executive Officer
NuScale Power Inc.
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cc: James Curtiss, Winston & Strawn