



July 3, 2012

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

SUBJECT: NuScale Power Submittal of "Instrumentation and Control Diversity and Defense-in-Depth Technical Report" (NRC Project No. 0796)

NuScale Power, LLC (NuScale) hereby submits a technical report for NRC review. We intend to reference this report in future licensing actions. Please find enclosed the Instrumentation and Control Diversity and Defense-in-Depth Technical Report issued July 3, 2012.

This technical report provides an overview of the reactor protection system (RPS) architecture, a discussion of the key attributes of the RPS, and an overview of how NuScale incorporates the four echelons of defense and the six attributes of diversity into the RPS design. In a future revision, this report will discuss in greater detail how the NuScale design incorporates the four echelons of defense and six attributes of diversity within the overall NuScale I&C architecture. The revision will also include an evaluation of the design against the guidelines of NUREG/CR-6303, "Method for Performing Diversity and Defense-in-Depth Analyses of Reactor Protection Systems", Revision 1, issued December 1994.

NuScale requests that the NRC review the attached technical report in support of our discussions and meeting scheduled for August 2012.

Enclosure 1 contains NuScale proprietary information as defined by 10 CFR 2.390. NuScale maintains this information in confidence and withholds it from public disclosure. Enclosure 2 is a nonproprietary version of Enclosure 1.

The affidavit contained in Enclosure 3 identifies that the information contained in Enclosure 1 has been handled and classified as proprietary to NuScale. NuScale hereby requests that the information in Enclosure 1 be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390 and 9.17.

If you have any questions, please feel free to contact me at (541) 207-3931 or at ewallace@nuscalepower.com.

Sincerely,

Edward G. Wallace
Vice President, Regulatory Affairs

Add: Michael Mayfield }
S. Magrader } 4601
G. Cranston }
TO ERIPS NRC

- Enclosure 1: NP-TR-0112-1398-P, "Instrumentation and Control Diversity and Defense-in-Depth Technical Report," proprietary
Enclosure 2: NP-TR-0112-1398-NP, "Instrumentation and Control Diversity and Defense-in-Depth Technical Report," nonproprietary
Enclosure 3: NP-AF-0612-022, Affidavit, July 3, 2012

cc: Michael Mayfield, NRC TWFN-6 E04
Stuart Magruder, NRC, TWFN-9 F27
Greg Cranston, NRC, TWFN-9 F27

NuScale Power, LLC

AFFIDAVIT of Thomas F. Marcille

STATE OF OREGON

CITY OF CORVALLIS

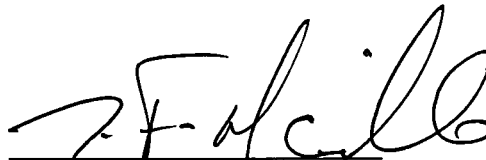
I, Thomas F. Marcille, state as follows:

- (1) I am the Vice President, Engineering, of NuScale Power, LLC (NuScale). I have personal knowledge of the facts set forth in this affidavit, and if called and sworn as a witness in a deposition or before any court, I could and would testify competently under oath to these facts. I am authorized to execute this affidavit on behalf of NuScale.
- (2) I have personal knowledge of the criteria and procedures used by NuScale in designating confidential commercial information as proprietary and have been delegated the function of reviewing the information, described in this affidavit, which NuScale seeks to have withheld from public inspection. I have been authorized to apply for the withholding of this information on behalf of NuScale.
- (3) The harm that would result if the information sought to be withheld is disclosed to the public is as follows:
 - (a) The information discloses information about the processes, components, and methods by which NuScale develops a design approach that includes features and processes to eliminate the concern for common-cause failures (CCF) in the Reactor Protection System (RPS). NuScale has performed significant research and evaluation to develop a basis for these processes, components, and methods and has invested significant human and financial resources in such development.
 - (b) NuScale's unique processes, components, and methods provide NuScale with a competitive economic advantage over other companies. Public disclosure of the information would cause substantial harm to NuScale's competitive position and reduce or foreclose opportunities for NuScale to generate a return on its investment in research and development. Although the exact financial value of the information is difficult to quantify, the processes, components, and methods are key elements of the design basis for a NuScale plant and, therefore, have substantial value to NuScale.
 - (c) If the information were disclosed to the public, NuScale's competitors would have access to the information without having been required to undertake a similar expenditure of resources. Such disclosure would constitute a misappropriation of NuScale's intellectual property, would unfairly provide NuScale's competitors with a windfall and would deprive NuScale of the opportunity to seek an adequate return on its investment.
- (4) The information sought to be withheld is contained in the enclosure to NuScale letter from Edward G. Wallace, dated July 3, 2012, to the NRC, NuScale Power Submittal of Proprietary "Instrumentation and Control Diversity and Defense-in-Depth Technical Report", (NRC Project No. 0769). The enclosure, NP-TR-0112-1398-P, contains the designation "NuScale Proprietary Class 2" at the top of each page. The information considered by NuScale to be proprietary is identified within double brackets "[[]]" in the document, and discloses NuScale's approach to defense-in-depth and diversity for the instrumentation and control (I&C) systems applied to the NuScale nuclear power module.
- (5) The basis for proposing that the information be withheld is that NuScale treats the information as trade secrets and commercial information that is privileged and confidential. NuScale relies upon the exemption from disclosure set forth in the Freedom

of Information Act ("FOIA"), 5 USC § 552(b)(4), as well as exemptions applicable to the NRC under 10 CFR §§ 2.390(a)(4) and 9.17(a)(4).

- (6) With respect to the considerations set forth in 10 CFR § 2.390(b)(4):
- (a) The information sought to be withheld has been held in confidence by NuScale.
 - (b) The information is of a sort customarily held in confidence by NuScale and, to the best of my knowledge and belief, consistently has been held in confidence by NuScale. The procedure for approval of external release of such information typically requires review by the staff manager, project manager, chief technology officer or other equivalent authority, or the manager of the cognizant marketing function (or his delegate), for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside NuScale are limited to regulatory bodies, customers and potential customers and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or agreements to maintain confidentiality. The information is being transmitted to and received by the NRC in confidence.
 - (c) No public disclosure of the information has been made, and it is not available in public sources. All disclosures to third parties, including any required transmittals to NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements that provide for maintenance of the information in confidence.
 - (d) Public disclosure of the information is likely to cause substantial harm to the competitive position of NuScale, taking into account the value of the information to NuScale, the amount of effort and money expended by NuScale in developing the information, and the difficulty others would have in acquiring or duplicating the information. The information sought to be withheld is part of NuScale's technology that provides NuScale with a competitive advantage over other firms in the industry. NuScale has invested significant human and financial capital in developing this technology, and NuScale believes it would difficult for others to duplicate the technology without access to the information sought to be withheld.

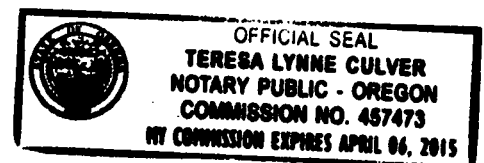
I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information, and belief.


Thomas F. Marcille

State of Oregon, County of Benton.

Subscribed and sworn to before me this 3rd day of July 2012.


Notary Public



My commission expires:

April 6, 2015