



12/30/2016

Docket: PROJ0769

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

**SUBJECT:** NuScale Power, LLC Submittal of "Loss-of-Coolant Accident Evaluation Model"  
(NRC Project No. 0769)

NuScale Power, LLC (NuScale) hereby submits the topical report TR-0516-49422 "Loss-of-Coolant Accident Evaluation Model", Revision 0. The purpose of this submittal is to request that the NRC review and approve the loss-of-coolant accident (LOCA) evaluation model (EM) described in this report for analyses of design-basis LOCA events in the NuScale Power Module. NuScale respectfully requests that the acceptance review be completed in 60 days from the date of this transmittal.

Enclosure 1 is the proprietary version of the report entitled "Loss-of-Coolant Accident Evaluation Model." Enclosure 2 contains the nonproprietary version of the report entitled "Loss-of-Coolant Accident Evaluation Model." The theory manual for NRELAP5, NuScale's proprietary system thermal-hydraulic computer code used for the LOCA EM, is provided in Enclosure 3. The theory manual for NRELAP5 is provided to the NRC for information and does not form part of the topical report TR-0516-49422 for which NuScale is seeking NRC review and approval.

NuScale requests that the Enclosure 1 and Enclosure 3 be withheld from public disclosure in accordance with the requirements of 10 CFR § 2.390. The enclosed affidavit (Enclosure 4) supports this request. Further, NuScale requests that Enclosure 3 be considered proprietary in its entirety. As such, a non-proprietary version will not be issued. Enclosure 1 and Enclosure 3 have also been determined to contain export controlled information. This information must be protected from disclosure per the requirements of 10 CFR § 810.

Please feel free to contact Jennie Wike at 541-360-0539 or at [jwike@nuscalepower.com](mailto:jwike@nuscalepower.com) if you have any questions.

Sincerely,

Thomas A. Bergman  
Vice President, Regulatory Affairs  
NuScale Power, LLC

Distribution: Frank Akstulewicz, NRC, TWFN-6C20  
Greg Cranston, NRC, TWFN-6E55  
Rani Franovich, NRC, TWFN-6E55  
Omid Tabatabai, NRC, TWFN-6E55  
Samuel Lee, NRC, TWFN-6C20

Enclosure 1: "Loss-of-Coolant Accident Evaluation Model", TR-0516-49422-P, Revision 0, proprietary version

Enclosure 2: "Loss-of-Coolant Accident Evaluation Model", TR-0516-49422-NP, Revision 0, nonproprietary version

D111  
NRD

LO-1216-52517  
Page 2 of 2  
12/30/16

Enclosure 3: "NRELAP5 Version 1.3 Theory Manual", SwUM-0304-17023, Revision 4,  
proprietary version  
Enclosure 4: Affidavit, AF-1216-52516



LO-1216-52517

**Enclosure 4:**

Affidavit, AF-1216-52516

**NuScale Power, LLC**

AFFIDAVIT of José N. Reyes, Jr.

I, José N. Reyes, Jr., state as follows:

- (1) I am the Chief Technology Officer of NuScale Power, LLC (NuScale), and as such, I have been specifically delegated the function of reviewing the information described in this Affidavit that NuScale seeks to have withheld from public disclosure, and am authorized to apply for its withholding on behalf of NuScale
- (2) I am knowledgeable of the criteria and procedures used by NuScale in designating information as a trade secret, privileged, or as confidential commercial or financial information. This request to withhold information from public disclosure is driven by one or more of the following:
  - (a) The information requested to be withheld reveals distinguishing aspects of a process (or component, structure, tool, method, etc.) whose use by NuScale competitors, without a license from NuScale, would constitute a competitive economic disadvantage to NuScale.
  - (b) The information requested to be withheld consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), and the application of the data secures a competitive economic advantage, as described more fully in paragraph 3 of this Affidavit.
  - (c) Use by a competitor of the information requested to be withheld would reduce the competitor's expenditure of resources, or improve its competitive position, in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product.
  - (d) The information requested to be withheld reveals cost or price information, production capabilities, budget levels, or commercial strategies of NuScale.
  - (e) The information requested to be withheld consists of patentable ideas.
- (3) Public disclosure of the information sought to be withheld is likely to cause substantial harm to NuScale's competitive position and foreclose or reduce the availability of profit-making opportunities. The accompanying reports reveal distinguishing aspects about NuScale's loss-of-coolant accident evaluation model used for analyses of design-basis loss-of-coolant accidents in the NuScale power module.

NuScale has performed significant research and evaluation to develop a basis for this evaluation model and has invested significant resources, including the expenditure of a considerable sum of money.

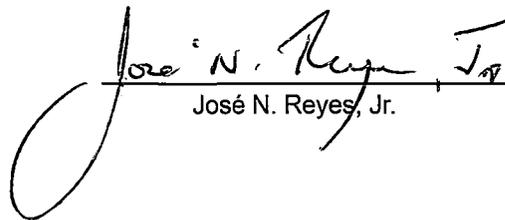
The precise financial value of the information is difficult to quantify, but it is a key element of the design basis for a NuScale plant and, therefore, has substantial value to NuScale.

If the information were disclosed to the public, NuScale's competitors would have access to the information without purchasing the right to use it or having been required to undertake a similar expenditure of resources. Such disclosure would constitute a misappropriation of NuScale's intellectual property, and would deprive NuScale of the opportunity to exercise its competitive advantage to seek an adequate return on its investment.

- (4) The information sought to be withheld is in the enclosed reports entitled Loss-of-Coolant Accident Evaluation Model and NRELAP5 Code Manual Theory Manual. The enclosures contain the designation "Proprietary" at the top of each page containing proprietary information. The information considered by NuScale to be proprietary is identified within double braces, "{{ }}" in the document.

- (5) The basis for proposing that the information be withheld is that NuScale treats the information as a trade secret, privileged, or as confidential commercial or financial information. 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) Pursuant to the provisions set forth in 10 CFR § 2.390(b)(4), the following is provided for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld:
- (a) The information sought to be withheld is owned and 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, licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or contractual agreements to maintain confidentiality.
  - (c) The information is being transmitted to and received by the NRC in confidence.
  - (d) 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 contractual agreements that provide for maintenance of the information in confidence.
  - (e) 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 is true and correct. Executed on December 29, 2016.

  
José N. Reyes, Jr.