November 8, 2021 Docket No. 99902052

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 Presentation Materials, "Carbon Free Power Project (CFPP) Combined License Pre-application Engagement," PM-108461, Revision 0

REFERENCE: Letter from Carbon Free Power Project to NRC, "Licensing Lead for Carbon Free Power Project, LLC," dated October 26, 2021 (ML21299A363)

NuScale Power, LLC (NuScale) has requested a meeting with the NRC technical staff on November 18, 2021, to discuss the CFPP volcanic hazards assessment and its implementation of Regulatory Guide 4.26, "Volcanic Hazards Assessment for Proposed Nuclear Power Reactor Sites." The purpose of this submittal is to provide presentation materials to the NRC for use during this meeting.

The enclosure to this letter is the nonproprietary presentation entitled "Carbon Free Power Project (CFPP) Combined License Pre-application Engagement," PM-108461, Revision 0 This letter makes no regulatory commitments and no revisions to any existing regulatory commitments.

If you have any questions, please contact Kyra Perkins at 704-713-5220 or at kperkins@nuscalepower.com.

Sincerely,

John Volkoff
COLA Licensing Manager
NuScale Power, LLC

Distribution: Michael Dudek, NRC
Bruce Bavol, NRC
Getachew Tesfaye, NRC

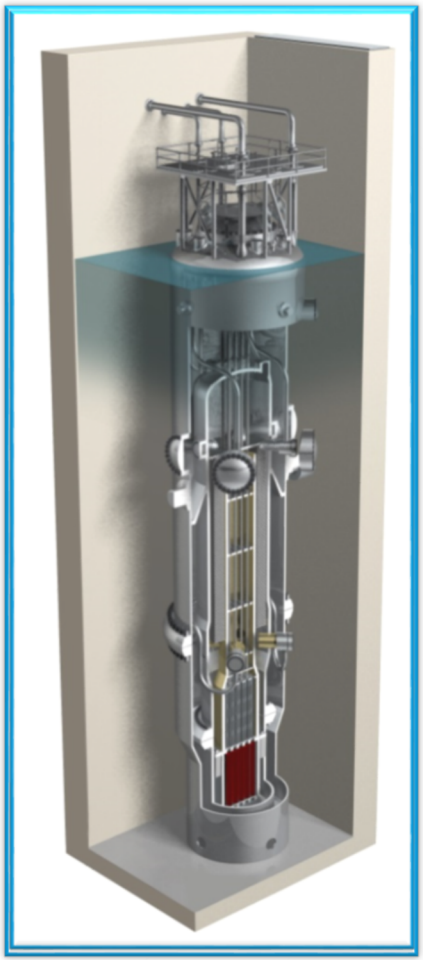
Enclosure: "Carbon Free Power Project (CFPP) Combined License Pre-application Engagement," PM-108461, Revision 0

Enclosure:

"Carbon Free Power Project (CFPP) Combined License Pre-application Engagement," PM-108461, Revision 0

NuScale Power, LLC
1100 NE Circle Blvd., Suite 200 Corvallis, Oregon 97330 Office 541.360-0500 Fax 541.207.3928
www.nuscalepower.com

Carbon Free Power Project (CFPP) Combined License Pre-application Engagement



Volcanic Hazards Assessment

November 18, 2021

PM-108461
Revision: 0

Carbon Free Power Project

Presenters

Kyra Perkins
Licensing Engineer, NuScale

Peter Shaw
Licensing Engineer, NuScale

Agenda

- Safety Topic
- Purpose
- Objectives
- Site Overview
- Engineering Analysis Approach
- Next Steps

Safety Topic

Shared Responsibilities for Nuclear Safety

Who Is Responsible for Nuclear Plant Safety?

- Nuclear plant safety involves shared responsibilities over entire plant lifecycle
  - Inadequate consideration is a contributor to weak nuclear safety culture (ref. Sidebar 7.1 to Report of Lessons Learned from Fukushima Nuclear Accident)
- Nuclear plant safety begins with plant design and continues through plant procurement, construction, operation and maintenance (O&M), and eventually decommissioning. Thus, numerous organizations share responsibilities:
  - Plant/equipment designers, manufacturers, procurers, and constructors – design and build as much inherent safety into a plant as can be reasonably achieved
  - Plant owners/operators – operate/maintain plants to achieve nuclear safety goals
  - Regulator(s) not directly responsible, but provide(s) important oversight function (ref. NRC Final Safety Culture Policy Statement, 76 FR 114, Page 34773)

Safety Topic

Shared Responsibilities for Nuclear Safety

- Appropriate sharing of nuclear safety responsibilities is an expectation for each organization contributing to the NuScale technology design and ultimately, the licensing, procurement, construction, O&M, and decommissioning of the Carbon Free Power Project (CFPP)

The CFPP nuclear power plant to be the culmination of multiple organizations all embracing their shared responsibilities for nuclear plant safety

Purpose

- Present high-level strategy for CFPP Volcanic Hazards Assessment (VHA)
  - Implementation of the engineering analysis approach per Regulatory Guide (RG) 4.26, Revision 0, Volcanic Hazards Assessment for Proposed Nuclear Power Reactor Sites

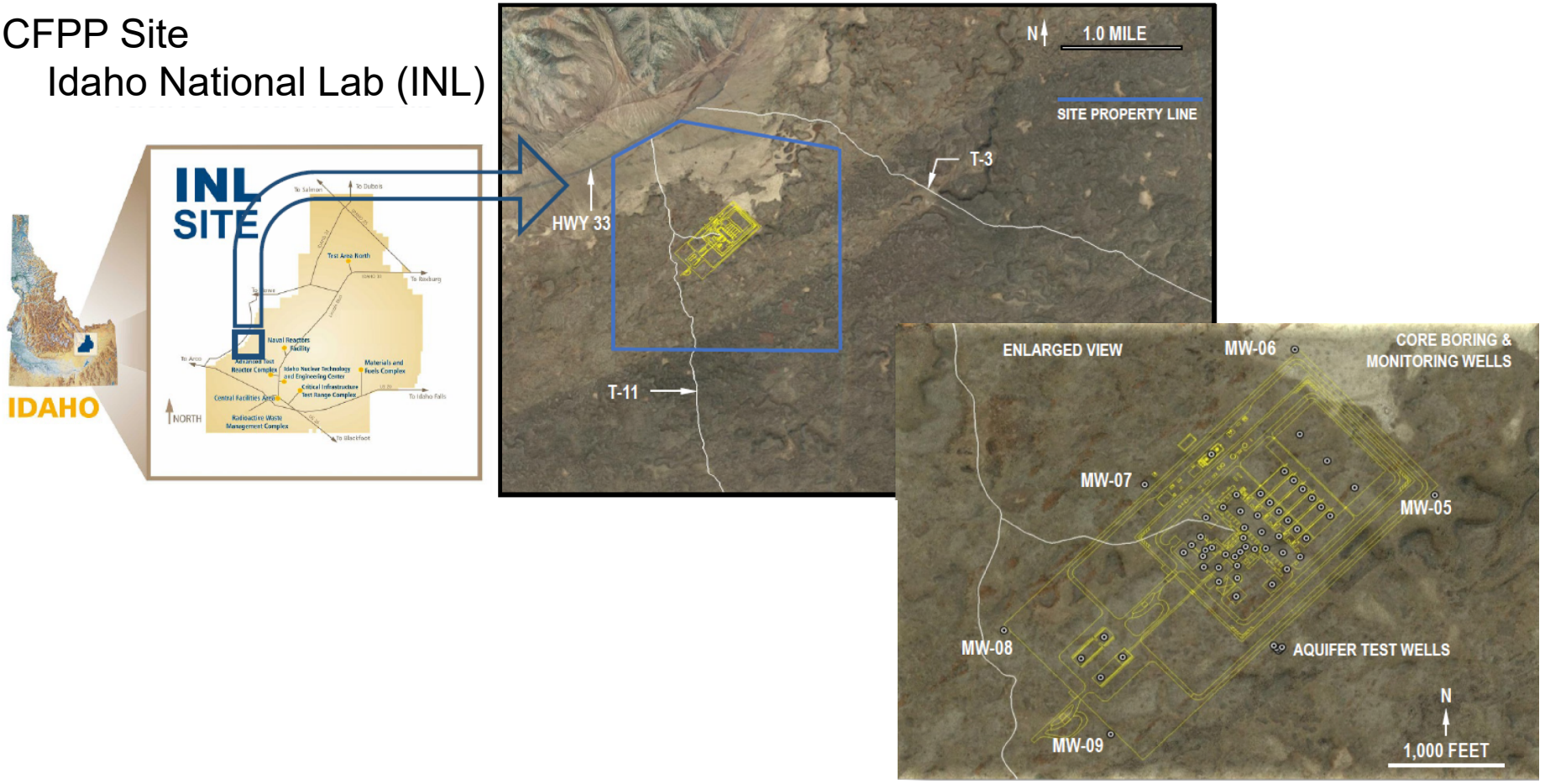
Objectives

- Gain alignment from NRC Staff on use of the engineering analysis approach to evaluate the CFPP site
- Determine need for future pre-application engagements and early submittals
- Clarify aspects of RG 4.26

Site Overview

CFPP Site

Idaho National Lab (INL)



Regulatory Guide 4.26 Strategy

Current Step

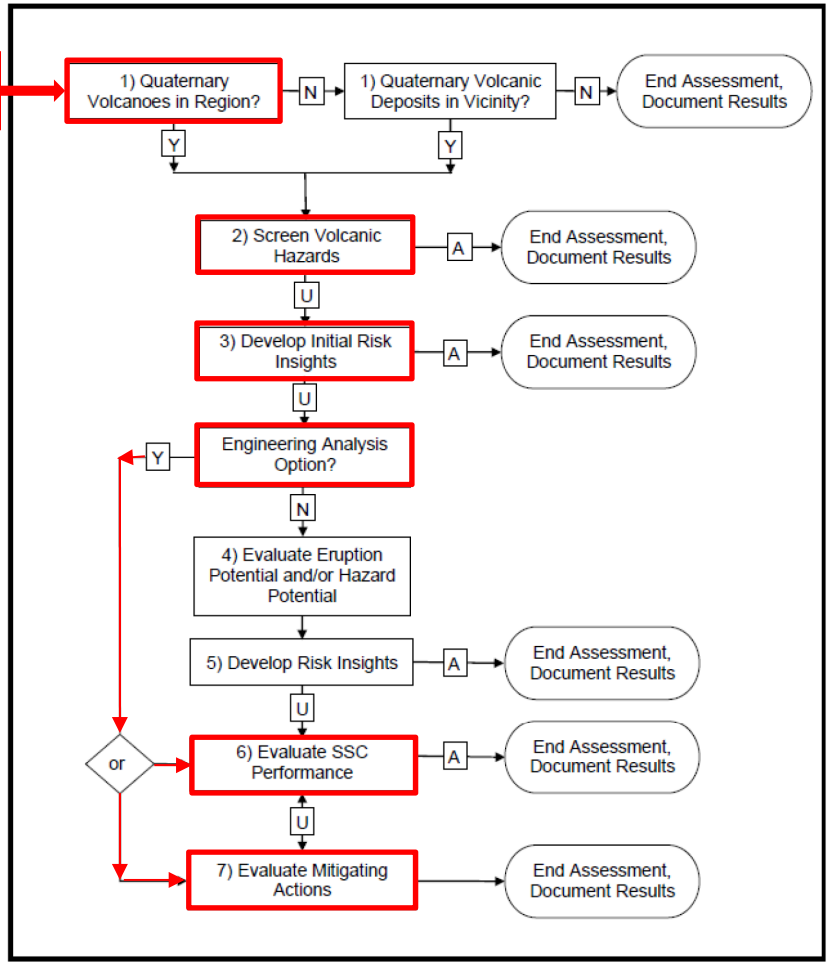


Figure 1 Flowchart for an acceptable volcanic hazards assessment

("Y" = Yes, "N" = No, "U" = Unacceptable performance, A = "Acceptable performance)

Engineering Analysis Option

- Establish measurable data
- Collect data
- Utilize other resources (USGS, DOE, etc)
  - Will coordinate and integrate w/ INL site wide PVHA
  - Common professional resources
- Model maximum magnitude hazard using probabilistic insights to understand uncertainties in lieu of the Senior Seismic Hazard Analysis Committee (SSHAC) process
- Analyze impact and determine best course of action in accordance with Regulatory Guide 4.26

Next Steps

- Complete data collection
- Complete project execution plan
- Questions/Comments?

Acronyms

CFPP	Carbon Free Power Project
COL	Combined License
DOE	Department of Energy
INL	Idaho National Laboratory
NRC	Nuclear Regulatory Commission
RG	Regulatory Guide
SSC	Structures, Systems, and Components
SSHAC	Senior Seismic Hazard Analysis Committee
VHA	Volcanic Hazards Assessment
USGS	United States Geological Survey