

## **Response to SDAA Audit Question**

Question Number: A-16.3.3.1-11

Receipt Date: 06/17/2024

## Question:

In combined Applicable Safety Analyses, LCO, and Applicability sections of Bases for GTS 3.3.1, Rev 1: On page B 3.3.1-19, second paragraph under "1. Excore Nuclear Power," the last sentence states:

"A single CRDM may be energized in MODE 2 or 3 using an alternate power source while conducting CRA coupling and decoupling."

NuScale is requested to explain how this statement relates to the phrase "capable of withdrawing more than one CRA," which modifies the Modes 2 and 3 Applicability of MPS Functions

1.a RTS on High Power Range Linear Power

1.b DWSI on High Power Range Linear Power

(This is related to Table 3.3.1-1 footnotes (a) and (b), which include this phrase and which is the principal subject of audit item A-16.3.3-2)

## Response:

Verification that a control rod drive shaft is uncoupled or coupled is performed using the associated control rod drive mechanism (CRDM). The coupling and uncoupling verifications are performed utilizing a single CRDM that is energized using an alternate power source not associated with the reactor trip breakers. If the reactor trip breakers are closed, all of the CRDMs are capable of control rod assembly withdrawal and the reactor trip system (RTS) and demineralized water supply isolation (DWSI) functions are enabled. The phrase "capable of



withdrawing more than one CRA" used in Standard Design Approval Application Table 3.3.1-1 footnotes 1.a and 1.b, signifies that the reactor trip breakers are closed and, as such, the RTS and DWSI functions are to be enabled. Footnotes 1.a and 1.b allow for a single CRDM to be energized by an alternate source for coupling and uncoupling verification without enabling the RTS and DWSI functions.

No changes to the SDAA are necessary.