



The Secretary of Energy

Washington, DC 20585

November 2, 2022

The Honorable Joyce L. Connery
Chair
Defense Nuclear Facilities Safety Board
625 Indiana Avenue NW, Suite 700
Washington, DC 20004

Dear Chair Connery:

This letter is in response to the Defense Nuclear Facilities Safety Board's (DNFSB or Board) letter dated June 16, 2022, requesting further clarification on the implementation of the unreviewed safety question (USQ) process following a probabilistic seismic hazard analysis (PSHA) update. Specifically, the Board requests further clarification from the Department of Energy (DOE) on timing expectations for entry into the USQ process in specific cases where a PSHA update identifies an increased seismic hazard that exceeds qualification assumptions for seismic safety controls.

The Department expects its contractors to operate our defense nuclear facilities in accordance with applicable provisions of Title 10 Code of Federal Regulations Part 830, *Nuclear Safety Management* (10 CFR Part 830). Specifically, DOE expects the 10 CFR § 830.203(f) process to be invoked when the contractor discovers or is made aware of a potential inadequacy of the documented safety analysis (PISA). Consequently, when the Contractor determines that the increase in hazard identified in the PSHA update is potentially not bounded by the safety analysis, the contractor is required to follow the process in 10 CFR § 830.203(f) because there is a potential inadequacy in the safety analysis.

Under 10 CFR § 830.203(f)(1), in the PISA process, the contractor will identify any appropriate compensatory measures needed to ensure the facility continues to operate safely. There are often additional analytical processes that follow the completion of the PSHA [e.g., prepare a Facility Condition Assessment (FCA)] that are needed to develop the information to fully consider the impacts. Prior to the development of the information, it is frequently not appropriate or necessary to implement compensatory controls or operational restrictions to place or maintain the facility in a safe condition. In some cases, a substantial amount of additional time and effort may be needed to fully understand the detailed response of the facility and systems to the change in seismic hazard (i.e., completion of the FCA). In these cases of seismic hazards analyses, a PISA declared early in the process may remain unresolved for a longer period than PISAs declared for other reasons.

As discussed in my previous letter and during the April 7, 2022, briefing to the Board, as part of the next revision of DOE-Standard (STD)1020-2016, *Natural Phenomena Hazards Analysis and Design Criteria for DOE Facilities*, and companion DOE

Handbook (HDBK)1220-2017, *Natural Phenomena Hazards Analysis and Design Handbook for DOE Facilities*, DOE intends to clarify and strengthen expectations and guidance for management of natural phenomena hazard analyses (NPH), to include seismic hazards.

DOE continues to appreciate the Board's advice and assistance. If you have any questions, please contact Mr. Todd Lapointe, Acting Director of the Office of Environment, Health, Safety and Security, at 202-586-6740.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Granholm', written in a cursive style.

Jennifer M. Granholm