DOE G 424.1-1C, *Implementation Guide for Use in Addressing Unreviewed Safety Question Requirements*
Frequently Asked Questions
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Q1: How does the November 2, 2022, DOE response letter from the Secretary to the DNFSB regarding the unreviewed safety question (USQ) process following a probabilistic seismic hazard analysis (PSHA) affect expectations established in DOE G 424.1-1C*, Implementation Guide for Use in Addressing Unreviewed Safety Question Requirements*?

A1: This FAQ provides further USQ process guidance as it applies to a PSHA based on the DOE response letter. The DOE response letter states, "… 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."

Section 3.4 of the DOE G 424.1-1C, under *New Requirements and New Methods*, states, "A PISA does not need to be considered for DSA upgrades in response to new requirements or to the use of new or different analytical tools during the upgrade process. New requirements typically follow implementation plans and are incorporated into DSA updates accordingly. For example, if new aircraft accident guidance was being implemented and resulted in the addition or removal of DSA controls, the possibility of a PISA does not need to be evaluated. Similarly, if the 10-year Natural Phenomena Hazards review identifies the need to use new, updated data sets or assessment methods, this would not be a PISA. Following this review, after a new or revised hazard analysis is completed, the results would be compared against existing facility design and a determination of whether a PISA exists might be necessary."

The contractor should note an important PISA distinction between the treatment of the 10-year NPH review expectations and expectations after a probabilistic seismic hazard analysis (PSHA) is completed. The Guide explains that the 10-year review is only to determine whether a new hazard assessment is required for a specific natural phenomenon (e.g., the seismic hazard). If the 10-year review determines that an updated hazard assessment is warranted, this does not represent a PISA. However, if an updated PSHA identifies, or it becomes apparent at any point before completion, that a hazard increase is potentially not bounded by the DSA, then the results of the new assessment should be considered "new information," and the PISA process should be followed (guidance is provided in Attachment C of the Guide).

A USQ determination, under 10 CFR § 830.203(f)(3), for a PISA declared as a result of an increased hazard resulting from a new PSHA, may require extensive analysis for completion. For facilities with SSCs classified NDC-3 (SDC-3) and above, an evaluation of such SSCs is required. The Facility Condition Assessment (FCA) process described in STD-1020-2016 Sections 9.3.2(b) through 9.3.7 may need to approach completion before the USQ determination can be completed. Therefore, PISAs resulting from a new PSHA likely will be unable to meet the Guide expectation (in Section C.5) of seven calendar days to complete the USQD. The Guide acknowledges there may be situations when USQDs necessitate extended periods of time to resolve them: "The USQ procedure may allow for DOE to approve additional time to perform USQD evaluations on a case-by-case basis with an appropriate technical basis."

A PISA declaration is often accompanied by compensatory measures or operational restrictions on a facility under 10 CFR § 830.203(f)(1). The Secretary's letter recognizes that "Prior to the development of

the information [e.g., prepare a Facility Condition Assessment (FCA)], it is frequently not appropriate or necessary to implement compensatory controls or operational restrictions to place or maintain the facility in a safe condition." Such restrictions may be unnecessary in response to a new PSHA unless the new FCA indicates certain SSCs could fail under the new hazard load. However, during the USQ determination and development of the FCA, if it becomes evident that certain SSCs could fail under the new, higher seismic load, then action should be taken to place or maintain the facility in a safe condition, and the contractor should implement such compensatory measures.