# Staff Feedback on KHNP Draft Revised Responses to RAI Question 3.7.3-3

New comments highlighted in yellow.

## 1 RAI Question 3.7.3-3

### 1.1 RAI Response to (a)

- The term "SSCs" at the end of the DCD markup should be replaced with subsystems.
- The DCD states that "no constant vertical static factors are used for subsystems," while the DCD markup states the opposite. Please provide a basis for this change. In addition, please explain what "constant vertical static factors" mean in the context of the equivalent static load method which is described in DCD Subsection 3.7.3.1.

[COMMENTS on KHNP Draft Revised Response, which is attached to George Wunder's email on 3/30/2016] The revised RAI response to RAI Question 3.7.3-3 and the DCD Markup to DCD Section 3.7.3.6, "Use of Constant Vertical Static Factors," have addressed staff's comments above and are acceptable.

(1) However, the markup to DCD Section 3.7.3.1.1 is based on the original DCD text, but not the updated text in response to RAI 3.7.3-4. Therefore, the staff request KNNP to provide a consolidated DCD markup based on the responses to RAI 3.7.3-3 and RAI 3.7.3-4.

(2) The staff would also suggest KHNP to use "peak spectral acceleration" in place of "peak g level" in DCD Section 3.7.3.1.1, to be consistent with the SRP 3.7.2.1.B criteria and to avoid possible confusion. The term "peak g level" can also refer to "peak acceleration."

### 1.2 RAI Response to (b)

The RAI response identifies a modification to DCD Tier 2, Subsection 3.9.2.2.4; however, this is not included under "Impact on DCD". The RAI response should be revised and a DCD markup should be provided for Subsection 3.9.2.2.4.

In addition, the sentence below shows a suggested change, indicated in bold:

The other types of supports for cable trays, conduits, HVAC ducts, and piping ~~are~~ **must be** adequately designed for the applicable loads because their fundamental frequencies are within the ranges where resonance can occur.

Also, the staff does not know how to interpret the following statement: "…equipment supports, which consist of the concrete foundation with anchor bolts, are to be greater than the ZPA frequency of the applicable ISRS." Please define "concrete foundation" and also describe how steel members of the equipment support are treated. Is the entire support, including steel members, subject to the "greater than the ZPA frequency" criterion?

[COMMENTS on KHNP Draft Revised Response, which is attached to George Wunder's email on 3/30/2016] The revised RAI response and the markup to DCD Section 3.9.2.2.4 are acceptable.