

**Recommended Edits to the 6-8-15 Draft Vulnerability Flood Standards**  
Flood Standards Development Committee Meeting  
June 30 – July 1, 2015

**VF-1, Derivation of Personal Residential Structure Flood Vulnerability Functions**

Disclosures

Professional Team: **Technical**

Amendatory/Suggested Language:

5. Describe how the personal residential structure flood vulnerability functions incorporate depth of flooding (above ground and above lowest floor), and wave action (in coastal areas).
56. State if the following flood characteristics are considered in the development of the personal residential structure flood vulnerability functions, and if so, how; if not, explain why not: flood duration, flood velocity, flood-induced erosion, flood-borne debris, salinity (saltwater versus freshwater flooding), contaminated floodwaters~~flood duration~~, and likelihood of mold following flooding.
7. Describe how the personal residential structure flood vulnerability functions incorporate: lowest floor elevation relative to ground, foundation type, primary construction materials, year of construction, and location (flood hazard zone).
68. State if the following building characteristics are considered in the development of the personal residential structure flood vulnerability functions, and if so how; if not, explain why not: number of stories, use of each story (e.g., habitable space, parking, storage, other), presence of basement, replacement value of building, structure value by story, square footage of living area, and other construction characteristics, as applicable.
- ~~13. Describe how the duration of a flood is considered. Include consideration of time after flooding before building access and cleanup can begin, and the likelihood of mold after flooding.~~
- ~~14. Describe how the personal residential structure flood vulnerability functions incorporate depth of flooding (above ground and above lowest floor), flood velocity, wave action (in coastal areas), undermining by erosion or scour, flood-borne debris, and salinity of floodwater.~~
15. Describe similarities and differences in how the personal residential structure vulnerability functions are developed and applied for coastal and inland flooding.

## **VF-2, Derivation of Personal Residential Contents Flood Vulnerability Functions**

### Standard

CoreLogic/EQECAT: **Technical**

Explanation: Appurtenant structures are considered a separate coverage. Recommend that appurtenant structures be removed from Part C in the standard.

Amendatory/Suggested Language:

- C. Contents flood vulnerability functions shall be derived separately for personal residential building structures, and manufactured housing, ~~and appurtenant structures~~.

### Disclosures

Professional Team: **Technical/Editorial**

Amendatory/Suggested Language:

8. State the minimum threshold, if any, at which personal residential contents flood loss is calculated (e.g., contents loss is estimated for residential structure damage greater than 20%, or flood depth greater than 6 inches). Provide documentation of assumptions and available validation data to verify the approach used.
9. ~~Indicate whether different~~ Describe similarities and differences in how personal residential contents flood vulnerability functions are developed and applied for coastal and inland flooding, ~~and if so, describe the differences~~.

## VF-3, Derivation of Personal Residential Time Element Flood Vulnerability Functions

### Standard

Professional Team: **Technical**

Amendatory/Suggested Language:

- B. The derivation of personal residential time element flood vulnerability functions and their associated uncertainties shall consider the extent of personal residential structure and/or contents damage and the estimated time required to repair, ~~or~~ replace, or reoccupy the structure.

CoreLogic/EQECAT: **Technical**

Explanation: Appurtenant structures are considered a separate coverage. Recommend that appurtenant structures be removed from Part C in the standard.

Amendatory/Suggested Language:

- C. Personal residential time element flood vulnerability functions shall be derived separately for personal residential building structures, and manufactured housing, ~~and appurtenant structures~~.

### Purpose

Professional Team: **Technical**

Amendatory/Suggested Language:

Personal residential time element flood vulnerability functions are to account for flood, contents and building characteristics, as well as external factors that affect the ability to repair, replace, or reoccupy a structure. This standard requires the development of personal residential time element flood vulnerability functions to be supported by historical or other relevant data.

### Disclosures

Professional Team: **Technical**

Amendatory/Suggested Language:

- 6. State the minimum threshold, if any, at which personal residential time element flood loss is calculated (e.g., time element loss is estimated for residential structure damage greater than 20%, post-event re-entry is delayed more than 1 day). Provide documentation of assumptions and available validation data to verify the approach used.

7. ~~Indicate whether different~~Describe similarities and differences in how personal residential time element flood vulnerability functions are developed and applied for coastal and inland flooding, ~~and if so, describe the differences.~~
9. Describe whether and how personal residential time element flood vulnerability functions take into consideration the damage to local and regional infrastructure, or personal residential time element losses resulting from a governmental mandate associated with flood events (e.g., evacuation and re-entry mandates).

## Audit

Professional Team: **Technical**

Amendatory/Suggested Language:

3. Documentation and justification of the following aspects or assumptions related to personal residential time element flood vulnerability functions will be reviewed:
  - a. The method of derivation and data;
  - b. Reliance on time element losses associated with other perils;
  - ~~b~~c. Variability of time element flood losses by personal residential structure classification and characteristics;
  - ~~e~~d. Variability of time element flood losses by flood characteristics;
  - ~~e~~. Regional and statewide, and coastal and inland, application of time element flood coverage;
  - ~~e~~f. Time element flood coverage for various occupancies for personal residential structures;
  - ~~f~~g. The methods used to estimate the time, including uncertainty, required to repair, ~~or~~ replace, or reoccupy the property due to flooding.