In response to RAI question 02.05.01-1, Exelon requests the following clarification:

FSAR Section 2.5.1.2.4.2.3 discusses in detail the growth faults found within the VCS site area. In particular, this section discusses growth faults D and E, the only site area growth faults with evidence of Quaternary deformation at the surface or in the subsurface. Based on the seismic reflection data, it was concluded that fault D offsets what is referred to as the Horizon 1 reflector, and above this horizon deformation is characterized by distributed folding (FSAR Section 2.5.1.2.4.2.3.1.4 paragraph 4). The lack of discrete surface offset or faulting associated with fault D also is confirmed by topographic profiles across the slope break that demonstrate the surface above the zone of distributed subsurface deformation is characterized by tilting or folding and not surface faulting (FSAR Section 2.5.1.2.4.2.3.2 paragraph 4). FSAR Section 2.5.1.2.4.2.3.2 provides a detailed discussion of the surface morphology associated with fault D. Topographic profiles in this section demonstrate that the folding is associated with very low-relief separations of the surface (order of several feet) over long distances (order of hundreds of feet) resulting in topographic breaks in slope with dips of less than 0.5 degrees (FSAR Section 2.5.1.2.4.2.3.2 paragraph 3). Despite the fact that fault E is not imaged in the seismic reflection data (FSAR Section 2.5.1.2.4.2.3.1.3), the similarity in surface morphology between fault E and D suggests that the surface deformation associated with fault E is also related to broad monoclinal folding or tilting and not discrete faulting (see FSAR Section 2.5.1.2.4.2.4). This style of broad warping is consistent with surface deformation associated with many growth faults throughout the Gulf Coastal plain (FSAR Section 2.5.1.2.4.2 paragraph 6).

Based on the fact that faults D and E do not break or offset the ground surface, Exelon requests clarification with respect to parts (e) and (f) of RAI question 02.05.01-1. In particular, part (e) refers to “the fault zone” whereas the FSAR sections cited above indicate that there is no evidence of a fault zone at the ground surface. In contrast, above fault D there is a broad, gently sloping zone of tilting. Also, part (f) asks that a diffusion-based scarp degradation analysis be used to estimate the time since the last movement of the fault. However, the FSAR sections cited above also indicate that there is no scarp associated with either fault D or E, so such an analysis cannot be conducted.

Finally, the introduction to the question asks that Exelon “provide the following information about the faults”, yet parts (d), (e), and (f) refer to a single “fault.” Please clarify which fault these parts are referring to (fault D or E), or if the response should be directed to both faults.