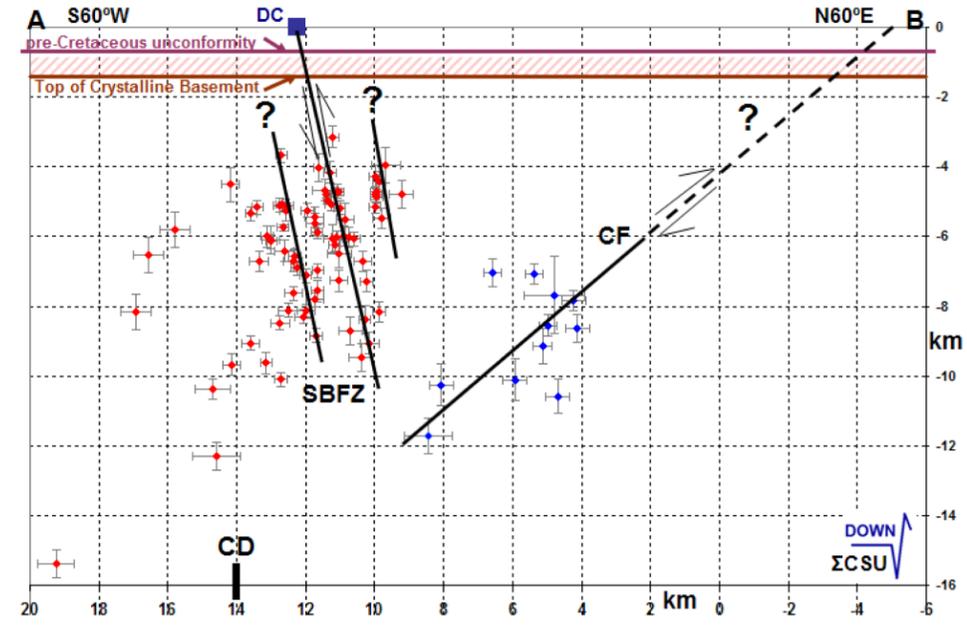
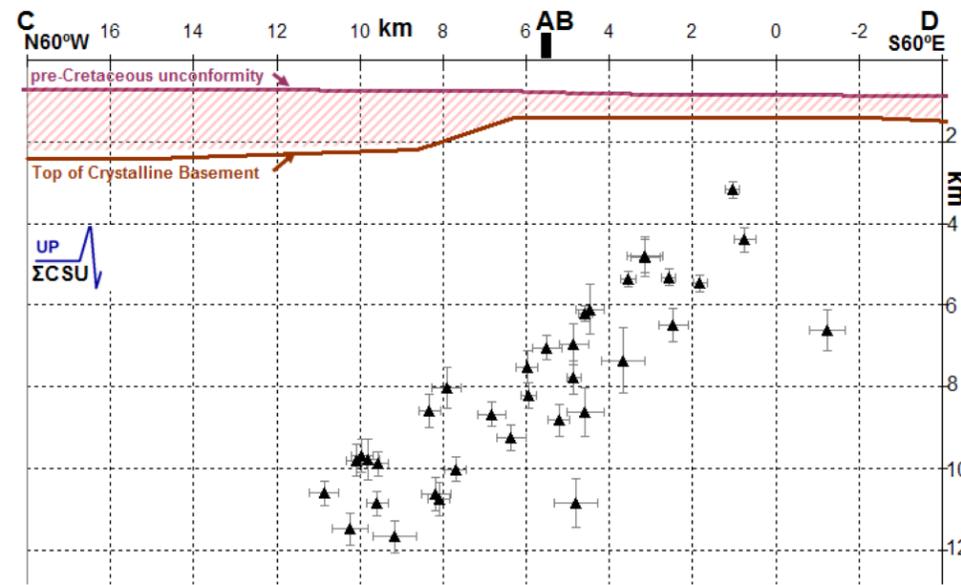


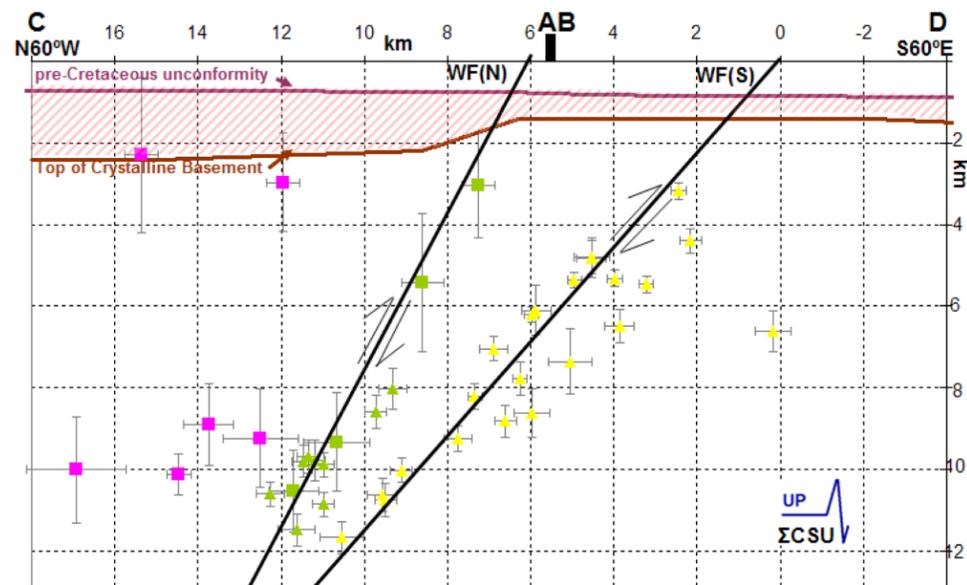
A) Cross-section along AB (RAI 02.05.01-16 Figure 3) oriented S60°W-N60°E showing earthquakes with dilatational first arrival at ΣCSU (solid circles in RAI 02.05.01-16 Figure 3), that define the Sawmill Branch fault zone (SBFZ) and the Charleston fault (CF). The shaded area in red shows the interpreted location of basalt flows and intercalated sediments. DC (blue square) on the surface shows the location of the Dorchester Creek. CD shows where the cross-section along CD intersects the present cross-section.



B) An alternate interpretation of the cross-section along AB suggests the presence of a series of parallel faults in the SBFZ dipping steeply to the NE, while the CF dips about 40° to the SW. The shaded area in red shows the interpreted location of basalt flows and intercalated sediments. DC (blue square) on the surface shows the location of the Dorchester Creek. CD shows where the cross-section along CD intersects the present cross-section.



A) Cross-section along CD (RAI 02.05.01-16 Figure 3) oriented N60°W-S60°E, showing only compressional arrivals at ΣCSU (open circles in RAI 02.05.01-16 Figure 3). The shaded area is the inferred location of basalt flows and intercalated sediments. AB shows where the cross-section along AB intersects the present cross-section.



D) Cross-section along CD (RAI 02.05.01-16 Figure 3) showing earthquakes with compressional first arrival at ΣCSU. Earthquakes located by using HypoDD, and A and B quality hypocentral locations obtained with HYPOELLIPSE are shown by triangles and squares respectively. The shaded area shows the interpreted location of basalt flows and intercalated sediments. Earthquakes associated with LF are not shown.

Source: Dura-Gomez and Talwani (in review)

Progress Energy Carolinas  
**Shearon Harris Nuclear Power Plant  
 Units 2 and 3**  
**Part 2, Final Safety Analysis Report**  
 New Hill, North Carolina

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Seismicity Cross-Sections in the Charleston  
 Area  
 RAI 2.5.1-16 FIGURE 5