**RIZZO Associates** is responsible for settlement analysis and update of Sections 2.5.4 and 2.5.5 of the Final Safety Analysis Report (FSAR) for the Calvert Cliffs NPP Unit 3 COLA. The COLA was developed through site specific and regionally available data as per United States Nuclear Regulatory Commission (USNRC) Design Guides, Regulatory Guides, and NUREG-0800. Inclusive of this effort were:

- Geotechnical analyses were conducted to describe the site geological setting and perform a detailed evaluation of the seismic conditions potentially affecting the design of foundations and structures, including a detailed three dimensional settlement analysis.

- Refined bearing capacity and settlement computations and analyses based on field data and RIZZO in-house interpretation of new borings and laboratory tests (by others).

- Upon review of new field and laboratory data, an updated soil profile below the EPBG/ESWB facilities were created. The soil profile incorporates new best estimate recommendations for shear strength, density, and strain dependent properties.

- Lateral earth pressures calculated in accordance to the methodologies described in the public docket. Also, a liquefaction analysis based on the work by Youd, et al., as well as the standard penetration, cone penetration, and shear wave velocity data.

- Slope stability analysis based on the slope geometry configurations that are up to date.

- Support to USNRC Requests for Additional Information (RAIs).

All work was completed in accordance with **RIZZO’s** Quality Assurance (QA) Program in compliance with 10 CFR 50, Appendix B and ASME NQA-1-1994. The Program was audited and approved by the Client.