



**DAVID D. BOGOSIAN, P.E.**  
**Senior Principal Engineer**  
**Los Angeles Operations Manager**  
**BAKER ENGINEERING AND RISK CONSULTANTS, INC.**

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**Education:**

**B.S. Civil Engineering, University of California, Los Angeles (summa cum laude)**

**M.S. Civil Engineering, California Institute of Technology, Pasadena**

**Areas of Practice:**

Mr. Bogosian is a member of BakerRisk's Structures Section and manager of the Los Angeles office since joining the company in 2007. During his 30-year career, his professional activities have centered around the design, analysis, and upgrade of structures subjected to blast and impact loads. Areas of practice include industrial facilities (for building subjected to accidental explosions), conventional and nuclear weapons effects, anti-terrorist design, and explosive safety for manufacturing and storage facilities. Project management experience ranges from the small and straightforward to multi-year R&D programs for the US government.

**Experience:**

- For the DoD, designing test articles for use in repeated blast tests; design for AT/FP requirements; development and validation of new engineering models for structural response to blast loads; analyzing large bodies of test data to determine parametric relationships; development of state-of-the-art software for TNT equivalence of various explosives; and design/execution of complex full-scale test programs for human injury due to blast-induced blunt trauma, blast infiltration through failing surfaces, and response of structural components.
- In the explosives safety arena, performing calculations to support quantity-distance (Q-D) siting, debris throw, and structural evaluation/upgrade of explosives processing and storage facilities.
- For numerous oil refineries and other industrial clients, project manager and lead designer for over 25 blast-related building design and upgrade projects. These included a wide variety of building types, structural systems, and levels of analytical detail, ranging from simple SDOF to detailed finite element analysis. Primary threats include vapor cloud explosions and dust explosions.
- As a licensed civil engineer, coordination and management of projects requiring design drawings and calculation packages carrying a P.E. stamp.
- Experienced in the use of high-fidelity nonlinear finite element models (primarily LS-DYNA) to support a wide variety of tasks, including assessment and design of buildings and mechanical components. Also experienced in the use of high-fidelity models as a basis for developing and validating simple engineering models.
- Development of test programs to investigate blast response issues, using shock tube or HE testing. Processing of test data to extract underlying parametric relationships. Use of test data to create fast-running models.
- Lead instructor and curriculum developer for week-long training course, "Design of Blast-Resistant Structures."

**Professional Chronology:**

1985 – 2005: Karagozian & Case, Glendale, CA

2005 – 2007: Applied Research Associates, Pasadena, CA

2007 – Present: Baker Engineering and Risk Consultants, El Segundo, CA

**Professional Registrations/Certifications:**

- California registered professional engineer (civil), no. 55345
- New York licensed professional engineer, no. 086959
- Arizona licensed civil engineer, no. 58282
- Security clearance: DoD Secret

**Publications:**

Mr. Bogosian is the principal author of over 35 conference and symposium papers. Additionally, he has written well over 100 technical reports, primarily in the areas of blast effects on structures, blast-resistant design, and test data assessment. Mr. Bogosian is among the co-authors of three chapters of the DoD's DAHS CWE (Design and Analysis of Hardened Structures for Conventional Weapons Effects) Manual, now reissued as UFC 3-340-01.