

Explosion Investigation

CTLGroup experts have led numerous investigations of blast effects on structures, including key roles in the Federal investigation of the historic Oklahoma City and World Trade Center incidents. CTLGroup experts have also written books, developed standards and conducted research on designing structures for blast resistance.

Descending on scenes in the aftermath of these often tragic events, we investigate to determine the nature and extent of damage, and evaluate fitness-for-service for potential future rehabilitation or reuse. We also work closely with our counterparts from other technical disciplines to determine origin and cause, supplying critical information about blast overpressure, which is drawn from the analysis of failed structural elements and thrown debris (blast indicators).

CTLGroup's engineers and technical staff draw from a broad range of multi-disciplinary capabilities and in-depth knowledge to provide clients with solutions that go beyond blast resistance and explosion investigation. For example, our explosion investigations incorporate our proven procedures for litigation support or insurance claim preparation.

Representative Projects

- WTC and Murrah Building Attacks: led FEMA investigations and conducted detailed evaluations of the loading and response of the buildings
- Sago Mine Explosion: investigated the performance of a lightweight, alternative sealing material that failed following an explosion in a sealed-off section of Sago Mine in West Virginia
- River Rouge Power Plant Explosion: evaluation of blast indicators and other evidence to establish root cause of the explosion

