

GexCon US EXPLOSION CONSULTING



GEXCON SERVICES:

- Explosion Consulting
- Dust Explosion Consulting
- Large Loss Investigations
- Atmospheric Dispersion Consulting
- LNG Consulting
- Offshore Explosion Safety

Contact

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GexCon has decades of experience performing explosion consequence and risk analyses. Our leading CFD package, FLACS, takes into account complex explosion dynamics like geometry interaction, gas cloud characteristics, ignition location and mitigation measures. We can perform "worst-case" calculations, detailed evaluations of gas cloud build-up, up to full probabilistic studies. CFD can be used for concept phase analysis and post-installation evaluations.

Explosions in petrochemical plants (API 752 & 753)

- Account for cloud shape, confinement & congestion distribution
- Dispersion study to limit possible explosion consequences
- Evaluate mitigation possibilities (layout, ventilation, deluge)

Offshore platform explosion

- FLACS based offshore explosion studies
- Probabilistic or realistic worst-case approach

Hydrogen explosion safety

- Study of cloud generation and explosion development
- Evaluate safe layouts or mitigation options

Dust explosion modeling

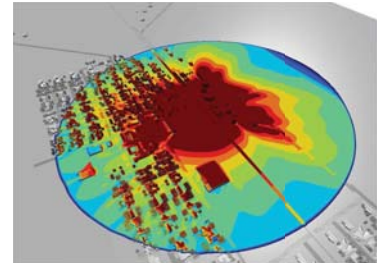
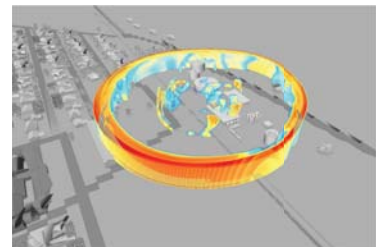
- Evaluate required vent design and need for mitigation
- Understand incidents and prevent recurrence

Explosions in buildings, vessels and systems

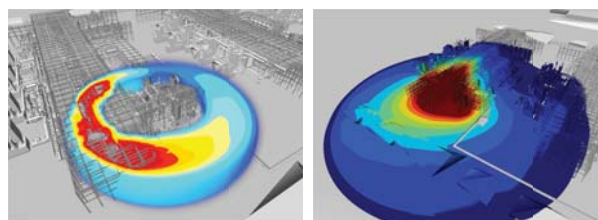
- Evaluate scale, L/D, multi-vessel, congestion and ducts
- Whole volume filled with gas is unrealistic and too conservative

Accident Investigation

- FLACS dispersion & explosion models powerful in reconstruction



FAR FIELD ANALYSIS



VAPOR CLOUD EXPLOSIONS



REALISTIC BLAST MODELING

GexCon US

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