



# EXPLOSIVES ENGINEERING

## MINING & ENERGY

**RESPEC'S EXPLOSIVES ENGINEERING DIVISION SPECIALIZES**  
IN SOLVING CRITICAL DRILLING-AND-BLASTING ISSUES SAFELY AND EFFECTIVELY.

RESPEC's explosives engineering group combines advanced knowledge of drilling and blasting in addition to experience in mine planning and operations to provide a unique turnkey approach to improving and optimizing drill and blast operations. RESPEC's drill-and-blast experts have specialized experience in all aspects of blast design and optimization for coal, metal/nonmetal, surface, underground, and construction blasting.

RESPEC offers engineering and consulting services in:

- › Drill-and-Blast Design and Guidance
- › Blast Vibration Prediction and Management
- › Improve Fragmentation, Wall Control, and Overbreak
- › Blast Specification Design and Review
- › Quarry Site Plan Blasting Review and Support
- › Explosive Testing
- › Review of Blasting Complaints
- › Expert Witness Testimony
- › Safety and Training
- › Project Management

RESPEC also provides support on specialty projects such as close-quarter blast design and evaluation, collapsing of voids and underground workings, explosive-storage design, mine-to-mill studies, and explosives remediation and disposal. In addition, RESPEC provides complete instrumentation services for detailed blast analysis through our relationship with Carlson Software Inc., Tec-Survey and others.



Blast Review and Optimization



Blaster Training and Education

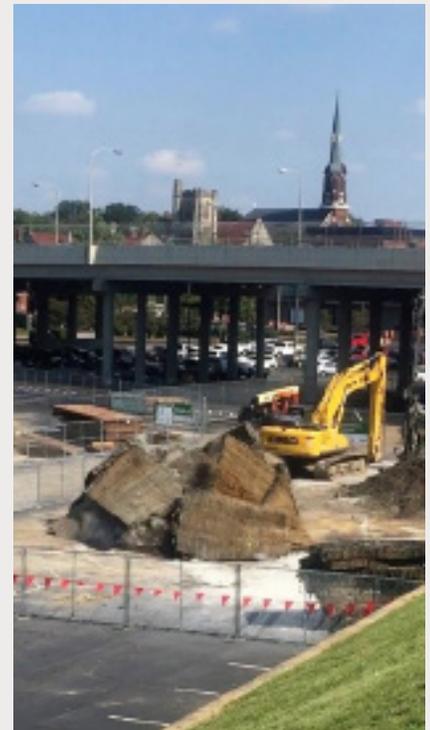
## KEY STAFF



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Construction/Close Quarter Blasting

# APPLICATIONS IN ACTION

RESPEC's Explosives Engineering group provides a combination of extensive field, technical, and analytical experience across the explosives industry. We provide explosive industry experts to develop project specific solutions both on-site and remotely based on client needs.



Surface Coal Blast Study for Design Optimization and Cost Savings



Surface and Underground Mine Blast Vibration Monitoring, Analysis, and Prediction



Surface Quarry Blast Design, Instrumentation, & Optimization



Explosive Expert Quality Control Services on High Profile Construction Blasting