Automatic Blast Suppression System in Underground Facilities

A Joint US – Republic of Georgia Study

Objective
Develop and test a prototype blast suppression system for underground facilities

System Benefits
- Decreasing overpressure on the shock front
- Protecting from gas and dust during and after an explosion
- Preventing fire during and after an explosion
- Immediate transmission of blast information to rescue services

Preliminary Results
0.15-0.2 m³ water discharged at 70 m/s per 1 m² tunnel cross section reduced the blast pressure by up to a factor of 4.
The goal is to reach a blast pressure reduction of 10 or more.