Kentucky Explosives and Blasting Branch

Suggested Blaster Training Topics

2016

1. **Shots without relief**
   1. No relief to the any side means the only relief is upward
   2. Only upward relief means a highly elevated risk of vertical flyrock
   3. Modification of blast designs are required
2. **Wet conditions**
   1. Increased risk of flyrock during and after long periods of extremely wet weather
   2. Effects of water in a blast hole, i.e. increased specific gravity of muddy water
   3. Effects of water on stemming material
   4. Effects of water on earthen material near a blast hole
3. **Decoupled explosives**
   1. Distribute energy differently than do coupled explosives loads.
   2. Hydraulic effects of water in bore holes are increased by decoupled explosives
   3. Pre-split parameters magnify these problems
4. **Unique Geology**
   1. Especially some Limestone formations and conditions
   2. The blasting expert is challenged to figure out how to safely and effectively blast unique geology (Blaster=licensed professional)
5. **Seismographs**
6. Proper placement, geophone / microphone
7. Uploading
8. Data analysis
9. **Misfires / Cutoffs**
10. Blaster should STOP and THINK before acting
11. Blaster should seek advice of his supervisor / tech rep
12. Blast now has new parameters, burdens should be measured
13. New hazards for flyrock have been created
14. The blast area to be, at minimum, doubled in size
15. The blast should be re-fired only if ground conditions surrounding the undetonated explosives have a reasonable expectation of preventing flyrock
16. **Blasting mats**
    1. Highly encouraged when blasting near homes and/or protected structures
    2. Critical when any of the above conditions are present