

Explosives Research Laboratory Safety Training Plan

Opener

-Explosives will kill you if not properly respected, therefore, safety is our #1 priority at AXPLO. Deviations from established safety rules put everyone at the site at risk.

Basic Safety

- Required PPE
 - hard hat, steel toes, safety glasses, safety vest, ear protection
- Prohibited activities
 - Smoking
 - Talking on cell phone
 - consumption of alcohol
 - talking while blaster in charge or blaster's helper is giving instructions
- Speed limit
 - 5 MPH

Procedures

- Who need to be contacted?
 - By Blaster in charge
 - 24 hours in advance
 - Written notification to CSM and Idaho Springs
 - 60 minutes prior to test
 - Notify via phone call Sheriff and fire department
 - Before and after each blast
 - Notification to Mine manager
 - By Student
 - When arranging test
 - Dr. Petr
 - When arriving at test site
 - Sign in with blaster in charge or blaster's helper
 - Before each test
 - Visual contact with blaster in charge
 - When leaving test site
 - Sign out with blaster in charge or blaster's helper
- What will happen before testing can begin
 - Walk perimeter
 - make sure no body/nothing is within blasting area
 - Check condition of fence
 - Initial head count
 - done by blaster's helper when people arrive

- Check all equipment
 - testing is worthless without instrumentation
- Seismograph setup
 - We must record ground vibration and noise levels from each blast
- Visitor count
 - head count after visitors have been evacuated to safe area
- Visitor location during testing
 - in or around trailer
 - must be with supervisor
- test personnel count
 - head count of those actively involved with testing
- Verbal or visual confirmation from blaster helpers that area is clear
 - physically secured

- Blasting signals
 - Five-minute warning siren
 - one-minute duration tone five minutes before blast
 - One-Minute Siren
 - one-minute duration immediately before blast
 - “FIRE IN THE HOLE”
 - Visual signals
 - All clear/ OK
 - wave hard hat above head with one hand
 - signal to blaster in charge before test that area is clear
 - All Clear signal after test
 - allowed to re-enter blast area
 - Stop
 - Wave both arms above head so that they cross
 - All activity will be stopped until problem is fixed

- Post-test procedure
 - To go see blast results
 - Wait for blaster in charge’s “All Clear”
 - Blaster in charge will wait for gasses to clear
 - Blaster in charge will check area for misfires
 - Clean up
 - Each group is responsible for cleaning up debris from their test

- Leaving Test site
 - Check back in PPE
 - record test results
 - ensure cleanliness of site and area around it
 - Check out with blaster in charge
 - Say goodbye to others present

Magazine

- ATF Type 1 permanent magazine
- 2 ton capacity
- Only licensed blasters can check explosives out of magazine
 - blaster in charge
- Detonators and boosters/other explosives must be kept separate during transportation
 - Prevent Sympathetic detonation if detonators go off
- During testing
 - Stored in Type III magazine next to pit

Other:

- NEVER be closer than 15 feet from charge without explicit approval from Blaster in Charge
- NEVER handle any explosives without explicit approval from blaster
- ALWAYS follow the instructions of the Blaster in Charge and test site staff to the letter and without argument
- ANY violation of a safety rule will result in immediate and permanent expulsion from the test site
- Safety Rules are for the protection of everyone at the ERL.

Review:

- NO cell phones
- NO smoking
- NO drugs or alcohol
- ALWAYS listen to and obey Blaster in Charge and Blasters Helpers
- ALWAYS wear ALL required PPE
- ANY safety violation will result in immediate and permanent expulsion from the test site
- THIS IS YOUR ONLY WARNING!!!!