EXPLOSIVE SAFETY FOR OPERATORS

2 DAYS, 2 INSTRUCTORS

After participating in the course, the participant should be aware of the government safety and reporting requirements as well as understand best practices. To get the maximum from this course, student participation is necessary.

GENERAL OVERVIEW

Laboratory & Scale up
Chemical toxicity and sensitivity
Compatibility Testing
Instrumentation & Equipment Maintenance – Cleaning, Maintenance and Repair
Hot Work Permits
Remote Operations
Personnel Protection
Access and Equipment Controls
General Explosives Area Controls
Smoking, Matches, Lighters and Metal Articles
Access to Explosives Areas

LABORATORY OPERATIONS

Safety Shields
Heating Operations
Low Concentration of Explosives in Solution
Explosives Sample Control

EXPLOSIVES AND PERSONNEL LIMITS AND CONTROL

PERSONAL PROTECTIVE CLOTHING

ELECTRICAL ISSUES

Bonding and Grounding of Equipment
SAFETY CONSIDERATIONS BY PROCESS
  Heating, Drying, and Thermal Conditioning
  Pressing
  Extruding
  Machining
  Dry Screening
  Blending
  Melting
  Assembly and Disassembly
  Inspection
  Synthesis
  Formulation
  Contamination Prevention

TESTING
  Test Planning
  Test Firing
  Gun Firings
  Ballistic, Environmental, Physical Property and Sensitivity Testing
  Test Failures and Misfires

MATERIALS HANDLING AND TRANSPORT
  Bare Explosives
  Carts or Hand Trucks
  Mechanical Handling Equipment
  Material Receipt

EXPLOSIVES STORAGE
  Storage Magazine Facilities
  Storage Magazine Operations Storage Review Program
  Storage Compatibility
  Containers

DECONTAMINATION, CLEANING, WASTE COLLECTION
  Vacuum Collection of Explosives Dusts
  Drains and Sumps
  Explosives Slurries
  Metal Scrap
  Explosives Recovery and Reuse
  Waste Disposal
EMERGENCY CONTROL
   Placarding and Fire Symbols
   Explosives Emergency Control Plans

QUANTITY-DISTANCE CRITERIA
   Hazard Classes and Class Division
   Establishing Quantity of Explosives and Distances
   Fire Protection

WRITING THE STANDARD OPERATING PROCEDURES
   Requirements & Types of Procedures
   Before Operation
   Supervisory Responsibility
   Preparation
   Approval
   Control
   Audits & Reviews

REFERENCE DOCUMENTS

*Safety/accident examples will be described as we cover these topics. Class members will be encouraged to bring up concerns or examples from their own experiences.

Disclaimers
1. Safety responsibility rests with the Army and individuals involved in Army activities. HERE is not responsible for any mishaps that may occur at Picatinny.
2. HERE attempts to make useful points about explosive practice and safety through examples of experiences of other organizations, and does not advocate specific changes to safety practices or policies at Picatinny Arsenal. Any such changes will be based solely on decisions by Picatinny management and staff.