

Appendix B
STANDARD EXPLOSIVES USE
SPECIFICATION FOR CONTRACTS

Deletions or alterations to this specification cannot be made without the prior written approval of the National Park Service (NPS) Blasting Officer. This approval is mandatory under the NPS Explosives Use Policy.

SECTION 02114 - EXPLOSIVES USE STANDARD

Part 1: General

1-1 Description: The work of this section consists of all activities that relate to explosives, including receiving, handling, transporting, storing, distributing, priming, loading, firing, and disposal.

1-2 Quality Assurance:

- A. Regulatory Agencies: All operations with explosives shall be conducted in accordance with the National Park Service Explosives Use Policy and the rules and regulations established by the Occupational Safety and Health Administration (OSHA) contained in 29 CFR 1910 and 1926, Construction and Safety. In addition, the contractor shall comply with Department of Transportation rules and regulations contained in 14 CFR 103, Air Transportation; 46 CFR 146-149, Water Carriers; 49 CFR 390-397, Motor Carriers; and Internal Revenue Service regulations contained in 27 CFR 55, Commerce in Explosives.
- B. Legal Requirements: Comply with all applicable federal, state, and local laws pertaining to the purchase, transportation, storage, handling, and use of explosives. Obtain all required permits and licenses.

1-3 Submittals:

- A. Blasting Plan: Submit a blasting plan covering qualifications of blaster-in-charge and blasting crew; transportation; storage and magazines; blast site operations; area security plan, including signal system; handling of misfires; removal and disposal of unused or excess explosives; and blast records.
 - 1. Blaster-in-Charge Qualifications:
 - a. Must possess a valid state blaster's license or other license issued by an equivalent licensing body acceptable to the contracting officer.
 - b. Must submit written resume showing not less than three years of active involvement as blaster-in-charge on projects similar in scope to this contract.
 - c. Must submit a list of five references who can testify to the known qualifications and reliability of the proposed blaster-in-charge.
 - 2. Blasting Crew Qualifications: All crew members must have completed explosives and blasting safety training of at least 24 hours and/or have not less than one year of experience acceptable to the contracting officer.

3. Transportation Plan: Include description and license number of vehicle to be used, route(s) to be traveled, and proposed hours of travel, and qualifications of driver.
 4. Storage and Magazines: Show location and construction of magazines and day-boxes, inventory system to be used, and signing installed.
 5. Blast Site Operations: Include type of explosives to be used, initiation system to be utilized, drilling system, loading plan, firing plan, pre-blast and post-blast inspection, handling of misfires, and removal and disposal of excess explosives.
 6. Area Security Plan: Include proposed signing, guard system, signal system, methods of communication, and pre-blast notification of affected agencies or entities.
- B. Permits and Licenses: Submit copies, or other proof acceptable to the contracting officer, of all applicable permits and licenses, including blasting liability insurance.
- C. Contracting Officer's Approval: The contracting officer will indicate his approval or disapproval of each submittal, and reasons for disapproval. When submittals have been approved, the number of copies the contractor wants for his own use will be returned. No work shall be done before approval is received.

1-4 Project Conditions:

- A. Protection: The safety of personnel shall be the controlling consideration in decisions involving explosives activities. The contractor shall exercise the utmost care not to endanger life and property. Make proper use of blasting mats and other protective devices, adopting whatever additional precautions are deemed necessary to prevent damage to trees, shrubs, other landscape features, buildings, utilities, monuments, and other structures. Make every effort to prevent damage to the natural and the constructed surroundings. Should damage occur, make restoration as required by the contracting officer at no additional cost to the government.
- B. Blaster-in-charge: One competent, experienced person shall be specifically designated in charge of explosives and all related activities. The designated person must present certification to the contracting officer as required in 1-3, A.1. He shall carefully supervise all work related to the use, storage, transportation, and handling of explosives. Permit only a minimum number of competent, experienced personnel, consistent with efficient operation, to handle explosives. Exclude anyone demonstrating carelessness, incompetence, or inexperience from further handling of explosives.
- C. Blasting Crew: Those persons designated by the blaster-in-charge or contractor to assist with explosives activities, including transportation and area security.
- D. Fire Watch: During periods of fire danger, the contracting Officer may require a person to be detailed as a fire watch for one hour after blasting, or for two hours during periods of extreme fire danger. Under extreme fire danger, the use of all-electric detonation systems may be required by the contracting officer.

1-5 Closeout Submittals: On completion of the work, furnish a written statement, countersigned by the blaster-in-charge, certifying that:

- A. All blasting is complete and all explosives materials, including detonators, detonating cord, explosives, and any unmixed components of a two-component explosive system, have been removed from the park.
- B. All blastholes loaded with explosives and any other set explosive charges have either been detonated or unloaded and explosives have been properly disposed of.

Part 2: Materials

Provide as required. Only explosives, explosive components, and detonators commercially manufactured within the previous two years shall be used.

Note: Nitroglycerine products are not permissible

Note: Cap/safety fuse products are not permissible

Part 3: Execution

3-1 General Requirements: The contractor shall abide by all referenced rules and regulations, and shall give special attention to the following specific rules:

- A. Locate magazines only at sites approved by the contracting officer.
- B. Magazines shall be of the type required by Bureau of Alcohol, Tobacco and Firearms (BATF) for the material being stored.
- C. Magazines and day-boxes shall be kept locked at all times except when withdrawing or returning materials from or to that magazine or box.
- D. Clear blast area of unnecessary personnel and equipment before delivery of any explosives to the site.
- E. Keep no more than a one-day supply of explosives and detonators at or near the work site. Keep explosives and detonators in separate approved day-boxes.
- F. Use only wooden or plastic tamping poles for charging explosives into drill holes. Drilling in bootlegs, or within 50 feet of any loaded hole, is prohibited.
- G. Do not use electricity from light or power circuits, or from batteries, for firing shots.
- H. Provide a positive signal system to give adequate warning in every direction as required in the area security plan. Guard all access points, including water access, to the blast area to halt personnel and vehicles a safe distance from the blast. Maintain intercommunication between guards and person firing the blast, assuring the blast area is clear prior to firing. Guarding shall commence when loading commences, and shall continue until post-blast inspection has been made and the "All Clear" signal given.

- I. Provide warning signs at all access points, including warnings to turn off radio transmitters, in accordance with OSHA requirements.
- J. Daily explosives inventory records shall be kept, and a record or log shall be made of each blast, such records to be available for inspection by the contracting officer upon request. Copies of all blast records shall be submitted to the contracting officer daily.

Part 4: Measurement and Payment

4-1 Explosives: Payment will be included under the bid item to which this work relates.