

Standards for Historic Weapons Firing in Areas Administered by the National Park Service

Reference Manual 6 – Chapter 15

Approval by:

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Related Policies

NPS Management Policies (2006) § 7.5.8 Historic Weapons: All uses of historic weapons in parks will strictly comply with the Historic Weapons Demonstration Safety Standards [Standards for Historic Weapons Firing in Areas Administered by the National Park Service and Living History Standards] contained in Reference Manual 6 and will follow the procedures specified therein for the particular weapon(s) being used. Weapons firing demonstrations conducted in NPS-administered areas are restricted to reproduction black powder weapons and human powered weapons only. Original NPS museum weapons will not be used. Requests by outside groups or individuals to use non-NPS original weapons will follow the exemption request procedure prescribed in Reference Manual 6 and will be granted or denied in writing by the superintendent.

NPS Management Policies (2006) § 7.5.9 Reenactments: Battle reenactments and demonstrations of battle tactics that involve exchanges of fire between opposing lines, the taking of casualties, hand-to-hand combat, or any other form of simulated warfare are prohibited in all parks. Even the best-researched and most well-intentioned representation of combat cannot replicate the tragic complexity of real warfare. Respect for the memory of those whose lives were lost at these sites and whose unrecovered remains are often still interred in these grounds precludes the staging of inherently artificial battles at these memorial sites. Battle reenactments create an atmosphere that is inconsistent with the memorial qualities of the battlefields and other military sites placed in the Service's trust. The safety risks to participants and visitors, and the inevitable damage to the physical resource that occurs during such events are also unacceptably high when seen in light of the NPS mandate to preserve and protect park resources and values.

Cultural Resource Management Guidelines 1997 Chapter 9, Section D. Stewardship, Part 4.

Consumptive Use of Historic Objects: (i): The requirement to request an exemption for the use of original objects applies only to objects that are in NPS ownership. In granting permits to outside groups (e.g., Civil War reenactors) who will be using other original or reproduction objects on park premises, the Superintendent must be satisfied that such use is consistent with the resource preservation and interpretation values of the park.

Black Powder Storage, Handling and Transportation Standards apply to all uses of firearms in the park, whether by NPS personnel or outside groups and whether objects are in NPS or other custody. NPS personnel will use only reproduction weapons in firing demonstrations. No waivers for use of original museum firearms will be granted.

Director's Order #6: Interpretation and Education § 8.7 Historic Weapons: Historic weapons demonstrations are interpretive demonstrations and should meet the standards for interpretive programs found in this Director's Order and in RM-6. All uses of historic weapons in parks will strictly comply with the *Standards for Historic Weapons Firings in Areas Administered by the NPS*. (See section 7.5.8 of Management Policies)

1. Definitions

Ammunition – Prepared blank cartridges for pre- and post-1898 weapons.

Backstop – A physical barrier that impedes or stops a projectile from traveling forward.
Examples: masonry, earthen or wood constructed wall, heavy fabric, archery curtain.

Black Powder – A potassium-nitrate based compound that forms a flammable solid used in most firearms manufactured prior to 1898.

Bulk Black Powder – Any amount of black powder not in the form of prepared cartridges or ignition devices shall be considered bulk black powder.

Demonstration Checklist – A list of conditions that must be confirmed or created to ensure safe firing of historic weapons.

Demonstration Interpreter – A person separate from the demonstration who controls each demonstration in which two or more demonstrators are involved. This individual may be the park's Historic Weapons Supervisor, a volunteer, or employee trained by the Historic Weapons Supervisor.

Episodic Volunteer – An individual or member of a group who is recruited by a park to perform large-scale historic weapons demonstrations for a specific program or special event and are not annually trained and certified by the Historic Weapons Supervisor. Episodic volunteers may participate in demonstrations that are facilitated by NPS staff, but they may not provide interpretation directly to the public. All volunteers must have a signed Volunteer Agreement. 29 CFR § 553.101 defines a volunteer as: “An individual who performs hours of service for a public agency for civic, charitable, or humanitarian reasons, without promise, expectation or receipt of compensation for services rendered, is considered to be a volunteer during such hours.” All individuals serving as historic weapons volunteers must operate under a signed Volunteer Agreement and comply with all other relevant standards in Director’s Order 7 and Reference Manual 7.

Historic Weapon – A full-scale replica or military surplus firearm or artillery piece.

Historic Weapons Demonstrator – An employee or volunteer who is at least 16 years old and trained to use historic weapons in demonstrations by a park’s Historic Weapons Supervisor.

Historic Weapons Program Instructor – A currently certified Historic Weapons Supervisor who assists in presenting biennial Historic Weapons Supervisor certification training.

Historic Weapons Supervisor – An officially trained and certified career, career-conditional, or term National Park Service (NPS) employee, 21 years of age or older, responsible for the enforcement of all safety standards and precautions relating to demonstrations in that area.

Human Powered Weapon – A full-scale replica made from original base materials like wood, bone, stone, and other similar materials that utilizes human power, sometimes augmented by machinery, to propel a projectile such as an atlatl, blowgun, bow, spear, or crossbow. Human Powered Weapon demonstrations are subject to the *Standards for Historic Weapons Firing in Areas Administered by the National Park Service*.

Human Powered Weapons Manager – Designated career, career-conditional, or term National Park Service (NPS) employee, 21 years of age or older, responsible for the enforcement of all safety standards and precautions relating to demonstrations in that area, that has received training and demonstrated competence in the safe use of human powered weapons.

Human Powered Weapon Standard Operating Procedure (SOP) – A written park policy that outlines the human powered weapon demonstration, interpretive need, training, certification, and safety standards. This document must be approved and signed by the park’s superintendent, Regional Historic Weapons Coordinator and the Regional Risk Management Officer to be valid.

Ignition Device – Any manufactured or commercially available device used to ignite the main powder charge in pre-1898 firearms and artillery. Examples are friction primers, slow match, quill primers and percussion caps.

Interpretation, Education, and Volunteers Directorate Sharepoint – The [Servicewide IEV Sharepoint](#) is the authoritative source for policy-level guidance, required checklists, and historic weapons program management documents.

Lead Historic Weapons Supervisor – The Historic Weapons Supervisor designated in writing by the superintendent to assume primary responsibility for program management in a park with more than one Historic Weapons Supervisor. This supervisor is responsible for ensuring that all park program data remains up to date in the Historic Weapons Program Database.

Magazine – Structure used to store explosives, ammunition, or ignition devices.

Recurring Volunteer – A volunteer who successfully completes park level training in historic weapons that includes written and practical assessments on an annual basis and has a signed Volunteer Agreement. 29 CFR § 553.101 defines a volunteer as: “An individual who performs hours of service for a public agency for civic, charitable, or humanitarian reasons, without promise, expectation or receipt of compensation for services rendered, is considered to be a volunteer during such hours.” All individuals serving as historic weapons volunteers must operate under a signed Volunteer Agreement and comply with all other relevant standards in Director’s Order 7 and Reference Manual 7.

Pass Box – A lockable container with an interior covered in non-sparking materials used for the temporary storage and transport of black powder ammunition.

Post-1898 Firearm – A bolt-action or semi-automatic pistol or rifle manufactured after 1898 that utilizes metal, centerfire cartridges and smokeless powder as the propellant.

Pre-1898 Weapon – Any model firearm or cannon produced prior to 1898 that uses black powder as the propellant for the projectile.

Regional Inspector – A currently certified Historic Weapons Supervisor assigned to provide assistance and assess a park’s historic weapons program.

Regional Historic Weapons Coordinator – A member of a regional interpretation program who aids and coordinates inspections of park historic weapons programs within the region and

serves as the signatory for any park level Human Powered Weapon SOP. In the event of a regional vacancy, the Washington Support Office will take over responsibilities of this position.

Regional Risk Management Officer – A member of the regional safety or risk management team who serves as the signatory for any park level Human Powered Weapon SOP.

Target – Any dense medium like hay, straw, or foam that will stop the forward progression of a projectile such as an arrow, bolt, or dart.

2. Responsibilities, Training, & Certification of Historic Weapons Personnel

2.1 Historic Weapons Supervisor

Historic Weapons Supervisor Program Responsibilities: All historic weapons firing demonstrations within an NPS site or performed by NPS employees or volunteers must be under the supervision of an officially trained and certified career, career-conditional, or term NPS employee, 21 years of age or older, who shall be responsible for the enforcement of all safety standards and precautions relating to demonstrations in that area.

Historic Weapons Supervisor Training Responsibilities: The Historic Weapons Supervisor is responsible for training persons involved in demonstrating historic weapons in their park on a regular and recurring basis. This training must be at least six (6) hours long, be documented, and include a thorough review of *Standards for Historic Weapons Firing in Areas Administered by the National Park Service* and the approved manual for the weapon(s) used. Documentation must include name of trainee, description of competencies taught, hours of training, and a record of which competencies were met or unmet by the trainee. Training hours from another NPS site or other agency may not be substituted for six (6) hours of park level training.

Historic Weapons Supervisor Certification: Certification for a Historic Weapons Supervisor is obtained only by demonstrating mastery of the required competencies described in the Historic Weapons Supervisor training curriculum to the satisfaction of a certified Historic Weapons Instructor. Certification is valid to the end of the calendar year, four (4) years from the certification date and is limited to only those historic weapon types listed on the certificate. The superintendent must authorize a certified Historic Weapons Supervisor to carry out their function by signing the certificate. Seasonal or Pathways employees may be certified as a Historic Weapons Supervisor provided that: 1) training slots are available after all requests from career, career-conditional, or term employees are filled, and 2) Seasonal or Pathways employees will not be designated as a park's Lead Historic Weapons Supervisor.

2.2 Human Powered Weapons Manager

Human Powered Weapons Manager Responsibilities: All human powered weapons demonstrations within an NPS site or performed by NPS employees or volunteers must be under the supervision of an officially trained and certified career, career-conditional, or term NPS

employee, 21 years of age or older, who shall be responsible for the enforcement of all safety standards and precautions relating to demonstrations in that area.

Human Powered Weapons Manager Training Responsibilities: The Human Powered Weapons Manager is responsible for training persons involved in demonstrating human powered weapons in their park on a regular and recurring basis. This training must be at least six (6) hours long, be documented, and include a thorough review of NPS standards for historic weapons demonstrations and the approved manual for the weapon(s) used. Documentation must include name of trainee, description of competencies taught, hours of training, and a record of which competencies were met or unmet by the trainee. Training hours from another NPS site or other agency may not be substituted for six (6) hours of park level training.

Human Powered Weapons Manager Certification: Certification for Human Powered Weapons Manager is obtained by successfully completing a Human Powered Weapons Manager certification training. Certification is valid to the end of the calendar year, four (4) years from the signed Human Powered Weapon SOP and only for the weapon(s) referenced in the SOP. The superintendent must authorize a certified Human Powered Weapons Manager to carry out their function by signing the Human Powered Weapons SOP.

2.3 Historic Weapons Demonstrator

Minimum Age Requirement: The minimum age of a historic weapons demonstrator is 16 years.

Historic Weapons Demonstrator Responsibilities: Historic weapons demonstrators will adhere to all NPS rules and regulations and only present programs in accordance with the themes and approaches approved by the park.

Historic Weapons Demonstrator Competency: All persons involved in demonstrations of historic weapons in NPS areas will be required complete six (6) hours of park-level training and demonstrate their competency in the use of the weapon to the satisfaction of the park Historic Weapons Supervisor or Human Powered Weapons Manager. Competency is met after successfully demonstrating the ability to perform the firing drill and misfire procedures contained in the appropriate manual.

2.4 Historic Weapons Demonstration Interpreter

Historic Weapons Demonstration Interpreter Responsibilities: The park's Historic Weapons Supervisor, Human Powered Weapon Manager or persons (employee or volunteer) trained by the Historic Weapons Supervisor, will facilitate each firing demonstration involving two or more demonstrators. Historic Weapons Demonstration Interpreter assures the range is clear; all safety procedures are being followed and presents interpretive programming to the public.

Historic Weapons Demonstration Interpreter Competency: The Historic Weapons Demonstration Interpreter will be required to demonstrate competency regarding knowledge of NPS range safety requirements, misfire procedures, appropriate demonstration techniques and any park specific requirements to the satisfaction of the park's Historic Weapons Supervisor or Human Powered Weapons Manager.

2.5 Historic Weapons Program Instructor

Historic Weapons Program Instructor Responsibilities: Certified Historic Weapons Instructors provide training and review competency requirements for the certification of NPS Historic Weapons Supervisors.

Historic Weapons Program Instructor Certification: The Historic Weapons Instructor Team will evaluate candidates who have successfully completed two certification courses for demonstrated mastery of the required competencies described in the Historic Weapons Supervisor training curriculum and recommend suitable candidates for approval by WASO Office of Interpretation, Education, and Volunteers. Candidates will be evaluated based on their past performance at historic weapons training, their performance as park-level historic weapons supervisors, and their demonstrated ability to work with a team. Candidates must have superintendent support to apply for this role and will complete a probationary period with mentorship from current historic weapons program instructors. The Interpretation, Education, and Volunteers Directorate at WASO will pay for travel costs associated with training new program instructors.

2.6 Regional Inspector

Regional Inspector Responsibilities: Each Regional Director must designate at least one Regional Inspector who is responsible for conducting in-person reviews of park programs within the region. Where a region might have a high number of parks or complex historic weapons operations, additional inspectors, or specialist inspectors may be designated by the Regional Director. Where a region does not have many active parks, a region may share an inspector with another region. Regional inspectors may not conduct the inspection for their home park. Regional offices will assume the travel costs associated with training new inspectors for their regions.

Regional Inspector Qualifications: Regional Inspectors must hold a current historic weapons supervisor certification and be currently supervising an active historic weapons demonstration program. Candidates who express a desire to perform this duty must have superintendent support and must have had no deficiencies in their park-level inspections. Candidates will be evaluated for suitability based on their past performance at historic weapons training, their park-level performance, and their demonstrated ability to work with a team.

2.7 Regional Historic Weapons Program Coordinator

Regional Historic Weapons Program Coordinator Qualifications: Each Regional Director must designate a Regional Historic Weapons Program Coordinator (RPC). This position falls to the Regional Interpretation Program Manager unless otherwise designated by the Regional Director. The RPC must be a member of the regional office staff with responsibilities for managing interpretation and be familiar with the Historic Weapons Program in parks throughout their region. The RPC provides historic weapons program support, coordinates regional program inspections, and serves as the connection for communications between field personnel and the Regional Director as well as between field personnel and historic weapons personnel in other regions. In the event of a regional vacancy, the Washington Support Office will take over responsibilities of this position.

2.8 Washington Support Office Historic Weapons Program Management Roles

Washington Support Office (WASO) Historic Weapons Program Manager: Must be a member of the WASO IEV staff with responsibilities for managing interpretation and be familiar with the Servicewide Historic Weapons Program, usually the Servicewide Interpretation Program Manager. The WASO Historic Weapons Program Manager provides a leadership role in providing policy oversight, developing strategic direction, funding guidance, and program evaluation. The Manager works collaboratively with Risk Management, Interpretation, and other disciplines to write policy, guidance, and standards for the servicewide program. The Manager serves as the liaison between the WASO ADIEV and the Regional Coordinators and Inspectors and the Certified Historic Weapons Instructors and Supervisors.

Washington Support Office (WASO) Historic Weapons Program Coordinator: A member of the WASO IEV Office with responsibilities for leading Servicewide interpretation efforts and policy. The WASO Historic Weapons Program Coordinator serves as the first line point of contact between WASO IEV, Regional Offices, and parks. This position is responsible for coordinating the proper use of the historic weapons program database, assisting with organization of bi-annual historic weapons training, providing policy assistance to regions and parks, and elevating inquiries to the WASO Historic Weapons Program Manager as appropriate.

Associate Director for Interpretation, Education, and Volunteers (ADIEV): The ADIEV oversees the Servicewide Historic Weapons Program and holds final authority in matters relating to historic weapons program management and policy.

Policy Guidance: The Washington Office team will maintain a Historic Weapons Program policy page as part of the [Servicewide Interpretation, Education, and Volunteers Sharepoint page](#). The page will contain policy-level guidance, required checklists, and program management support documents.

2.9 Historic Weapons Volunteers: 29 CFR § 553.101 defines a volunteer as “An individual who performs hours of service for a public agency for civic, charitable, or humanitarian reasons, without promise, expectation or receipt of compensation for services rendered, is considered to be a volunteer during such hours.” All individuals serving as Historic Weapons Volunteers must operate under a signed Volunteer Agreement and comply with all other relevant standards in Director’s Order 7 and Reference Manual 7.

3. General Requirements

3.1 Program Planning

All historic weapons demonstrations must be described in the park's approved Comprehensive Interpretive Plan before implementation. Parks must also be familiar and comply with Reference Manual-6 Living History. When considering the role of historic weapons in their interpretive programming, parks should work with their Regional Interpretation Program Manager to:

- Determine that historic weapons demonstrations are an appropriate technique for conveying the park's interpretive themes and significance.
- Ensure the park has sufficient facilities and space to meet range safety and storage requirements.
- Identify employee(s) to become a certified Historic Weapons Supervisor(s) or Human Powered Weapons Manager(s).
- Determine and commit to meeting the costs of supporting a historic weapons program including weapons, safety equipment, uniforms, ammunition, storage requirements, training requirements, and historic weapons program inspections.

3.2 Historic Weapons Program Supervision: Management of all NPS programs (firing, non-firing, & human powered) utilizing historic weapons must be under the supervision of an officially trained and certified career, career-conditional, or term NPS employee, 21 years of age or older. Any park with a regular, recurring historic weapons program shall have a certified Historic Weapons Supervisor or Human Powered Weapons Manager on staff. Those parks hosting intermittent demonstrations or events must request a certified Historic Weapons Supervisor or Human Powered Weapons Manager from another park to supervise special events or programs.

3.3 Compliance with Director's Orders Relating to Living History Interpretation: All historic weapons demonstrations will comply with the Director's Orders regarding Living History Interpretive Programs and any related NPS *Management Policies* including the prohibition of battle reenactments (see *Management Policies* sections 7.5.8 & 7.5.9).

3.4 Impact on Resources: Demonstrations that would adversely affect the natural or cultural features of an area are prohibited. Determinations of adverse effect must be conducted in collaboration with resource management personnel.

3.5 Use of Reproduction Weapons: Only reproduction weapons may be used in firing or human powered demonstrations conducted in areas administered by the NPS. Military surplus weapons may be used for firing demonstrations if reproductions of approved post-1898 firearms are not commercially available. Additionally:

Pre-1898 Black Powder Weapons:

- Use of Reproduction Artillery: Reproduction artillery used in areas administered by the NPS must be full scale. Tubes and equipment must be made from the same base materials as the originals using the specifications in Artillery Specifications.
- Non-Firing Use of Original Weapons: Original period weapons may be used in a non-firing program or display provided they are approved weapons covered by the NPS Historic Weapons Safety training course and are inspected and made safe/empty by a certified historic weapons supervisor.

Post-1898 weapons: All employees and volunteers demonstrating or supervising the use of post-1898 weapons must have successfully completed a National Agency Check with Inquiries (NACI) background check.

Human Powered Weapons: Parks may present programs featuring the use of human powered weapons provided that the park has an approved Human Powered Weapon (HPW) Standard Operating Procedure (SOP) in place detailing the interpretive need and cultural significance for such demonstrations, program supervision, training requirements, weapons inspections and checklists, range safety protocols, and storage/security requirements. The park superintendent, the Regional HW Coordinator (Regional IEV Program Manager) and Regional Risk Management Officer must approve and sign the SOP to be valid. Parks must appoint a Human Powered Weapons Manager (HPWM) to manage their HPW program, training, and program safety. The HPWM is responsible for the requirements of human powered weapons program management as outlined in 2.2. Human powered weapons demonstrations will be limited to blow guns, bows and arrows, crossbows, spears, and atlatls. HPW SOP must be reviewed and re-signed every four years.

3.6 Exemptions: Requests for exemption to any part of these Director's Orders must be made in writing using the following procedure.

Exemption Request Procedure

- Initial requests must be endorsed by the superintendent and the Lead Historic Weapons Supervisor and forwarded to the Regional Inspector(s) for review.
- The Regional Inspector will endorse or reject the proposed exemption and either return to the park for re-drafting or forward to the Regional Historic Weapons Program Coordinator (Regional Interpretation Program Manager).
- The Regional Historic Weapons Program Coordinator will endorse or reject the proposed exemption and forward to the Regional Director.
- The Regional Director will endorse or reject the proposed exemption and forward to the WASO Historic Weapons Program Manager and Associate Director for Interpretation, Education, and Volunteers.
- The Associate Director will make a final determination based on the analysis above and work with the Regional Coordinator to inform the originating park in writing.

Exemptions will be evaluated on a case-by-case basis and will not be construed to establish a precedent for other parks. Exemptions are valid only in the park initiating the request and must be reviewed and renewed each year.

3.7 Non-Compliance Procedures: In collaboration with the Historic Weapons Program Manager, a team of at least one regional inspector, a regional safety manager, and the regional historic weapons coordinator (Interpretation Program Manager) will investigate all reports of activities not in compliance with these policies. Investigation teams must include the Regional Coordinator, Regional Safety Manager, and at least one regional inspector from a different region. Should the team determine that a violation has occurred, penalties ranging from a verbal warning to suspension of the park's historic weapons program will be assessed. See Section 12 "Process for Responding to Non-Compliance with Historic Weapons Program Policies" for a detailed description of the non-compliance process.

- 3.8 Media Events/Commercial Filming:** Media events, theatrical presentations, commercial photography, and filming will be regulated under a special use permit. Historic weapons standards will be applied to any firing of historic weapons in the park relative to these activities. The prohibition of reenactments within National Park Service units remains in effect under a Special Use Permit.
- 3.9 Pyrotechnic Displays:** Historic weapons supervisors are not certified to, and will not, supervise pyrotechnic displays.

4. Weapon Storage, Security, & Inspections

4.1 Approved Weapons

The following weapons are approved for use in NPS historic weapons demonstrations provided they are representative of the interpreted time period and listed on the Historic Weapons Supervisor's certificate:

Pre-1898 Artillery: Full-scale replicas of muzzle loading artillery pieces manufactured using the same base materials as the original.

Pre-1898 Firearms: Full-scale replicas of muzzle-loading firearms utilizing match, flint or percussion locks. Breech-loading replicas utilizing paper cartridges and percussion caps. Breech-loading or repeating replicas utilizing brass cartridges containing a primer. Replica revolvers using paper cartridges and percussion caps or brass cartridges containing a primer.

Post-1898 Firearms: Only reproduction or military surplus weapons owned and maintained by the NPS may be used in firing demonstrations. Only the following weapons may be used in firing demonstrations or non-firing displays: Model 1892-1899 Krag-Jorgensen Rifle, Model 1903 Springfield Rifle, Model A3-03 Springfield Rifle, Model 1911 Automatic Colt Pistol, Model 1917 Enfield, Model 1917 Colt or Smith & Wesson Revolver and the M-1 Garand Rifle or Carbine.

Human Powered Weapons: Only full-scale replica atlatl, blowgun, bow, crossbow, or spear made from original base materials like wood, bone, stone, and other similar materials. Throwing axes, tomahawks, knives or swords are not authorized for human powered weapon demonstrations.

4.2 Storage

Historic weapons will be treated as sensitive property as defined in Director's Orders for Property Management and the storage standards described below.

Pre-1898 Firearms: will be stored in a locked, secure cabinet or windowless storage room when not in use. Access to weapons storage will be limited to the Historic Weapons Supervisor, those employees trained in the safe use and handling of historic weapons requiring access. A log documenting the date, time, and person accessing weapons storage will be maintained.

Post-1898 Firearms: must be stored in a locked cabinet or windowless storage room separate from black powder weapons. Access to weapons storage will be limited to the Historic Weapons Supervisor, law enforcement personnel, and those trained employees requiring access. A log

documenting the date, time, and person accessing weapons storage will be maintained. Storage of post-1898 weapons will meet standards in Reference Manual 9, Chapter 30.

Human Powered Weapons: will be stored in a locked cabinet or windowless storage room when not in use. Access to weapons storage will be limited to the Human Powered Weapons Manager and those employees trained in the safe use and handling of human powered weapons requiring access. A log documenting the date, time, and person accessing weapons storage will be maintained.

- 4.3 Security:** Structures used to store historic firearms will be guarded with a monitored intrusion detection system.
- 4.4 Identification:** All historic firearms used in demonstrations will have permanent identification markings placed in an inconspicuous location. A complete inventory of firearms will be maintained by serial number, manufacturer, model, NPS property number, barrel length, caliber, and location of identification markings on the firearm.
- 4.5 Stolen/Lost Weapons:** All lost or stolen historic firearms must be reported immediately to law enforcement personnel.
- 4.6 Inspections and Maintenance:** All historic weapons will be inspected by the park's Historic Weapons Supervisor/Human Powered Weapons Manager upon receipt and annually thereafter. Each weapon used in an NPS historic weapons demonstration (including non-firing programs) will be given a thorough visual inspection by the park Historic Weapons Supervisor at the beginning of each day a demonstration will occur. Visual inspection will follow the appropriate Historic Weapons Inspection Checklist. Post-1898 Firearms will be inspected and certified as safe by a licensed gunsmith at the time of purchase and every four (4) years thereafter. Each human powered weapon used in an NPS demonstration will be given a thorough visual inspection by the park Human Powered Weapon Manager at the beginning of each day a demonstration will occur.
- 4.7 "Tagged-Out" Weapons:** Any weapon failing to pass according to the approved checklist will be tagged with a description of the problem and not be used/issued until repairs are made. Following repairs, the inspection checklist will be applied again to ensure compliance before removing the tag and returning the weapon to service.

5. Black Powder, Ammunition Storage, Security & Inspections

5.1 Regulatory Requirements

In recognition of its public safety responsibility, NPS policy is to comply with all applicable provisions of federal, state, and local safety codes and standards. Where regulations differ, the NPS will be governed by the most restrictive regulations.

- 5.2 Approved Ammunition:** Only blank ammunition using potassium nitrate-based sporting grade black powder is permitted for use in NPS pre-1898 historic weapons demonstrations. The use of

a Lyle Gun to fire a bolt as part of a Beach Apparatus Drill following the approved NPS manual is permitted. The use of projectiles may be approved using the exemption process in section 3.6 for training purposes only.

Pre-1898 Black Powder Weapons: Ammunition using bulk black powder must be prepared following the procedures described in the approved manuals. The Historic Weapons Supervisor will ensure that cartridges are made to specifications, using the proper caliber former, and that powder loads do not exceed maximum loads listed in Appendix B – Tables of Maximum Loads. Parks must purchase commercially manufactured blank metal cartridges charged with black powder when available for weapons that require such ammunition. Historic weapons supervisors certified in the use of weapons utilizing straight-wall metallic cartridges (Sharps, Trapdoors & other firearms such as Colt and Schofield revolvers) may reload cartridges as prescribed in the manual. Use of hand loaded/reloaded bottlenecked/tapered metal cartridges for interpretive firing demonstrations is prohibited. Commercially manufactured plastic blanks that are hand charged with black powder and a shotgun primer may be used in Spencer and Henry rifles and carbines.

Approved Ignition Devices: Only commercially available “4-Wing” percussion caps are approved for NPS historic firearms demonstrations. Only slow match, quill primers, and approved commercially available friction primers and kits will be used in artillery demonstrations. The use of port-fires is prohibited. Ignition devices must be stored separately from black powder.

Post-1898 Weapons: Only commercially available, or military surplus, blank ammunition using the minimum propellant charge needed to ensure proper function of ejection and feeding systems may be used in post-1898 weapons demonstrations. Rifle ammunition should be six (6) crimp. Five (5) crimp blanks are more powerful and designed for grenade launching. Use of hand loaded/reloaded metal cartridges for interpretive firing demonstrations is prohibited.

Human Powered Weapons: The use of arrows, bolts, darts, and spears tipped with rounded target points are authorized as projectiles for human powered weapons. The use of broadhead or stone points is not authorized.

5.3 Ammunition Storage Facilities

Pre-1898 Black Powder Weapons: Bulk black powder and blank ammunition that does not contain a primer will be stored in a magazine that meet all standards. Cartridge ammunition that contains a primer will be stored in a locked cabinet with access limited to the park’s Historic Weapons Supervisor or trained employees requiring access.

Post-1898 Firearms: Only park-issued blank ammunition will be used in weapons demonstration. Blank ammunition will be stored in a locked cabinet that meets standards contained in Reference Manual-9, Chapter 30. Access will be restricted to the park’s Historic Weapons Supervisor, law enforcement personnel, and those trained employees requiring access.

Human Powered Weapons: Projectiles such as arrows, bolts, darts, or spears should be stored in appropriate containers such as a quiver. These projectiles can be stored with the human powered weapons in a locked cabinet or windowless storage room with limited access.

5.4 Ammunition Storage Supervision

Pre-1898 Black Powder Weapons: Black powder/ammunition storage and use within the park must always be under the supervision of an officially trained and certified career, career-conditional or term employee, 21 years of age or older, whom the superintendent has designated in writing to be responsible for the enforcement of all safety regulations and precautions. In the temporary absence of the responsible employee of two weeks or less, a career, career-conditional or term employee shall be designated in writing to perform visual inspections during this period.

Post-1898 Firearms: Ammunition for Post-1898 weapons must also be supervised by and accessible to the Senior Law Enforcement Officer or a commissioned officer designated in writing.

Human Powered Weapons: All human powered weapon ammunition is to be controlled only by the park's designated Human Powered Weapon Manager.

5.5 Notification of Local Fire Authorities: Written notification will be provided to local fire authorities as to the type, capacity and location of each site where black powder and ammunition are stored.

5.6 Storage Limits: Parks should store no more black powder or cartridge ammunition than they can use in one year. Bulk black powder may be stored for no more than two years. Artillery cartridges should not be stored for a period greater than five (5) days. Metallic cartridge ammunition may be stored for no more than four years. No park may store more than 300 pounds of bulk black powder.

5.7 Outdoor Storage of Black Powder: Fifty (50) pounds or more of black powder or prepared cartridges will be stored in an NPS Class 1 magazine, or multiple Class 2 magazine(s) stored within another structure. Refer to Appendix C - Black Powder Storage Requirements for NPS black powder storage standards. Ignition devices must be stored in a magazine or pass box separate from black powder and ammunition.

5.8 Indoor Storage of Black Powder: Fifty (50) pounds or less of black powder or prepared cartridges may be stored in an NPS Class 2 Magazine. Refer to Appendix C - Black Powder Storage Requirements for NPS black powder storage standards. Ignition devices must be stored in a magazine or pass box separate from black powder and ammunition.

5.9 Use of Inhabited Buildings: Visitor centers and buildings containing regularly staffed offices or workstations shall be considered as "inhabited buildings" under OSHA regulations. No portion of these buildings shall be used for magazines containing black powder, ammunition, or other explosive devices, nor for loading operations using these materials.

5.10 Use of Historic Structures: Historic structures, including historic fort magazines may be considered individually as locations for NPS Class 2 magazines. Proof that the facility and

location exceed safety regulations must be recorded in writing, approved by the Regional Director, and be on file in the park.

5.11 Removal of Black Powder or Ammunition

Pre-1898 Black Powder Weapons: Removal of black powder from a magazine shall be in an approved pass box if the powder is not in its approved shipping container. Loose powder must never be allowed in a demonstration area. A pass box containing ammunition shall be kept locked and attended by an employee at all times until contents are used in a demonstration or returned to the magazine. Ignition devices such as percussion caps and friction primers must be stored in a separate pass box. Ammunition may be transferred from the pass box to suitable historical containers such as cartridge boxes or limber chests for demonstration purposes. (f) At the completion of the day's demonstrations, unused ammunition will be returned to the pass box, and then to the magazine, unless locked and under the control of a park employee at all times between demonstrations.

Post-1898 Weapons: Removal of ammunition from the storage locker shall be in a metal or wood container kept under the supervision of an employee at all times. Ammunition may be transferred to magazines/clips prior to the demonstration. Loaded magazines/clips should not be placed in a firearm outside of the demonstration area.

5.12 Inspections and Inventory: Regular visual inspections of magazine and/or ammunition storage locker exteriors must be performed by the responsible employee at least weekly to ensure there have been no unauthorized attempts at entry. The responsible employee will conduct an inventory of magazine and/or ammunition storage locker contents every ninety (90) days. Black powder containers and ammunition packages should be dated and the oldest used first. An inventory log will be maintained to document use of black powder and ammunition. See "Black Powder Storage Inventory Log" for recommended inventory sheet.

5.13 Ammunition Loading Areas: Ammunition loading areas shall be in an uninhabited building located at least 50 feet from the magazine. In addition, the loading area will be provided with a non-sparking worktable or bench, adequate spark-free lighting, non-sparking floor surface and entrance controlled by the person handling the black powder. The loading area will be cleaned as needed with water to prevent the accumulation of black powder dust.

5.14 Exposed Powder: Exposed powder should be kept to a minimum and must not exceed one pound. A pass box should be used to protect any additional powder in the loading area. Loaded ammunition should be placed in a pass box as units are completed. Preparation of ammunition components (i.e. "cylinders") will be completed before powder is brought to the loading area.

5.15 Disposal of Black Powder/Damaged Cartridges: The Historic Weapons Supervisor will destroy all excess bulk black powder or torn/damaged/malfunctioning cartridges by soaking in water until the powder is dissolved. The remains will be disposed in a safe place according to the park's approved Misfire Plan. Under no circumstance will torn or damaged cartridges be returned to the magazine/ammunition storage area. Plastic repeater cartridges should have a hole poked in the front and then be soaked in water until powder is dissolved. Dissolved black powder must be disposed of in accordance with the appropriate "Black Powder Safety Data Sheet."

6. Black Powder Transportation

- 6.1 Regulatory Requirements:** Transportation of bulk black powder outside of park boundaries should be avoided whenever possible. Explore all avenues to get direct delivery to the park by the distributor before undertaking NPS transportation.
- 6.2 Transportation Requirements:** If bulk black powder must be transported outside of park boundaries, the following requirements must be met.
- a) A Historic Weapons Supervisor possessing a valid driver's license must transport powder.
 - b) Powder must be transported in a government vehicle that has been inspected using the Black Powder Transportation Checklist.
 - c) Transportation operations will comply with the Black Powder Transportation Checklist in addition to any requirements imposed by jurisdictions along the route.
- 6.3 Local Regulation:** State, county, and municipal authorities shall be contacted before transporting black powder through their jurisdictions to ensure compliance with all existing regulations.

7. Range Safety

- 7.1 Local Zoning Requirements:** Local zoning codes and authorities shall be consulted before designing demonstration ranges on parklands. Regulations and local sentiment regarding noise or potential hazards of blank firing must be considered before the program is implemented.
- 7.2 Park Requirements:** Suitability of parklands used for historic weapons demonstrations must be assessed to minimize potential safety hazards and adverse effects on resources. Maintaining the minimum cleared area shown on the range drawings in Appendix A - Approved Ranges for Historic Weapons Demonstrations is essential to keeping undetected visitors out of the danger zone. Whenever possible the site should also provide natural barriers to noise and encroachment.
- 7.3 Physical Barriers:** Physical barriers are required to keep visitors at the safe distances indicated on the range drawings in Appendix A - Approved Ranges for Historic Weapons Demonstrations. If natural features are inadequate to restrain visitors, ropes, fences, or other artificial barriers will be used.
- 7.4 Minimum Range Distances:** Parks should stage demonstrations so that no people, including employees and demonstrators, are permitted in front of the muzzle line or release point.
- Artillery Demonstrations:** No person, including demonstrators and NPS employees, will be allowed in an area beyond the muzzle of a firing cannon unless they are located at least 50 yards to either side of the nearest piece.
- Small Arms Demonstrations:** No person, including demonstrators and NPS employees, will be allowed in an area beyond the muzzle of a firing small arm unless they are located at least 25 yards to either side of the closest firearm.

Human Powered Weapons Demonstrations: No person, including demonstrators and NPS employees, will be allowed in an area beyond the release point of a human powered weapon. The use of a target is mandatory. Targets are to be placed at a minimum distance of 10 yards.

7.5 Use of Down-Range Barriers

Pre- and post- 1898 firearms and artillery: Cannons and firearms may be blank fired at a solid barrier such as a wall, building, or berm located no less than half the minimum downrange distance provided such firings will not damage the barrier.

Human powered weapons: In human powered weapon demonstrations, the use of a backstop of earth, wood, or heavy cloth curtain is recommended. If a backstop is used the range for overshot is reduced to (25) yards. If no backstop is used, the minimum distance for overshot is (50) yards.

7.6 Minimum Rear Area Distances

In areas behind the muzzle line of demonstrator(s), visitors will not be permitted closer than five (5) yards from the nearest demonstrator during small arms or human powered weapons demonstrations. In areas behind the muzzle line, visitors must be separated from the closest cannon by at least twelve (12) yards and from the closest limber/ammunition chest by at least seven (7) yards.

8. Demonstration Safety

8.1 Use of Manuals: All demonstrations shall follow the approved NPS manual for the particular weapon involved.

If a park wishes to demonstrate a weapon or drill for which there is no manual, they must:

- a. Submit a draft manual based on the period manuals/best practices to the Historic Weapons Safety Course Instructor Team for review.
 - Provide an interpretive justification demonstrating how the proposed weapon fits with the park's interpretive goals and themes. For consultation, please contact your Regional Historic Weapons Coordinator.
 - Parks demonstrating or displaying human powered weapons will develop a standard operating procedure (SOP) that establishes demonstration and range safety protocols manuals for their use and interpretation in consultation with experienced NPS personnel as well as Native Americans, Alaska Natives, or Native Hawaiians who have traditionally utilized those weapon(s).
- b. The instructors will review/edit the manual in cooperation with the park then forward with their recommendation for acceptance or rejection to WASO.
- c. Final review and approval/rejection is required by the Associate Director for Interpretation, Education, and Volunteers (ADIEV).

8.2 Types of Weapons Supervised: Only weapons listed on the Historic Weapons Supervisor's certificate may be used in firing demonstrations. All certified Historic Weapons Supervisors may independently supervise demonstrations utilizing weapons listed on their certificate. All Historic Weapons Supervisors certified to manage pre-1898 weapons may assist in supervising demonstrations of pre-1898 weapons not listed on their certificate provided the programs are supervised by a Lead Historic Weapons Supervisor with certification in those weapons. All certified Historic Weapons Supervisors will receive certification in the inspection of all NPS approved weapons for use in non-firing programs and displays. The types of weapons supervised by a park's Human Powered Weapons Manager will be documented in the park's Human Powered Weapons Plan.

8.3 Pre-Demonstration Inspections: All historic weapons will be inspected by the park's Historic Weapons Supervisor using appropriate Historic Weapons Inspection Checklists (See Historic Weapons Inspection Checklists) prior to beginning the day's demonstrations. All human powered weapons will be inspected by the Human Powered Weapons Supervisor using the appropriate checklists (Historic Weapons Inspection Checklists) prior to the day's demonstrations.

8.4 Demonstration Interpreter: One-person separate from the demonstration will control each demonstration in which two or more demonstrators are involved. This individual may be the park's Historic Weapons Supervisor or a volunteer or employee trained by the Historic Weapons Supervisor. The Demonstration Interpreter assures the range is clear, all range safety procedures are being followed, and the demonstration is explained adequately to visitors. An individual trained to serve as a Demonstration Interpreter may not act as a substitute for a certified Historic Weapons Supervisor in the performance of supervision requirements in section 8.5. The Demonstration Interpreter will be assisted by additional range lookouts as necessary.

8.5 Demonstration Supervision: A certified Historic Weapons Supervisor must be on duty and in the park during any small arms demonstration performed by employees or park volunteers who have successfully completed training at the park level. The on duty Historic Weapons Supervisor should be no more than one hour away from the demonstrations and assigned duties which would allow for immediate response in the event of an incident. A certified Historic Weapons Supervisor must be present at all artillery demonstrations. A certified Historic Weapons Supervisor must be present at small arms demonstrations performed by episodic volunteers. A Human Powered Weapons Supervisor must be present at all human powered weapons demonstrations.

8.6 Down Range Barrier Supervision: At least one employee or volunteer will be stationed to ensure that no visitor enters the range from behind the barrier unless such entry would be impossible.

8.7 Demonstrator Limits

Pre-1898 Black Powder Weapons: No more than two (2) artillery pieces or forty (40) small arms demonstrators may fire under the supervision of one Historic Weapons Supervisor.

Post-1898 Weapons: Demonstrations featuring the firing of post-1898 weapons will be limited to one demonstrator at a time.

Human Powered Weapons: Demonstrations will be limited to one demonstrator at a time.

- 8.8 Visitor Warnings:** Before firing, the demonstration interpreter will warn visitors to remain behind barriers, beware of the loud noise, caution people with hearing aids, and request control of children and pets.
- 8.9 Artillery Rate of Fire:** A minimum of 10 minutes must elapse after a firing and before reloading.
- 8.10 Misfires:** If a weapon misfires, the Demonstration Interpreter will explain the situation and procedures to visitors, keeping them safely in place until the weapon is discharged or rendered safe. If attempts to correct an artillery misfire fail, visitors will be removed from the demonstration area. Once visitors have been removed, unloading procedures prescribed in the appropriate manual will be followed. If attempts to correct a small arms misfire fail, the demonstrator(s) will remove themselves from any firing line and remain in the demonstration area until unloading procedures prescribed in the manual can be applied. All parks must have a written misfire plan approved by the regional inspector prior to initiating any weapons demonstrations.
- 8.11 Handling of Weapons by Visitors:** Visitors will not be allowed to touch or handle any loaded weapon or equipment containing ammunition. Visitors may be permitted to touch unloaded firearms, or human powered weapons provided the demonstrator keeps them under physical control. Visitors are prohibited from touching or handling any edged weapon.
- 8.12 Reduced Light Firing:** Historic weapons should be demonstrated during daylight hours. Reduced light firings must be approved in writing by the park Historic Weapons Supervisor and superintendent and include a justification based on interpretive themes. A certified Historic Weapons Supervisor must be physically present for all reduced light firing demonstrations. No reduced light firing may take place unless light levels permit demonstrators to see their weapons and equipment and the range is visible to the demonstrators and Historic Weapons Supervisor for distance of at least fifty (50) yards.

9. Personal Protection Equipment

- 9.1 Protective Clothing:** All demonstrators firing historic weapons will wear natural fiber or skin/hide long-sleeved outer garments or full uniforms appropriate to the historical period. No firearms or artillery demonstrations will be conducted in NPS uniforms or other modern clothing. Special care should be exercised with worn, thin, or fringed clothing.
- 9.2 Hearing Protection:** All historic weapons demonstrators using firearms or artillery must wear hearing protection, generally ear plugs, during firing demonstrations. Demonstrators must receive documented training in the proper use and care of approved hearing protection.
- 9.3 Artillery Personal Protection Equipment:** Demonstrators performing duties at the muzzle of the cannon are required to wear leather gauntlets. The cannoneer handling the sponge/rammer must wear welder's gauntlets. The cannoneer tending the vent must wear a leather thumb stall.

- 9.4 Bow and Arrow Personal Protection Equipment:** Demonstrators must wear a forearm guard to prevent bow bite and a finger guard or glove on the hand that grips the bow string.

10. Program Management

- 10.1 Multiple Supervisors:** In parks having more than one certified Historic Weapons Supervisor, the superintendent shall designate a Lead Historic Weapons Supervisor in writing who will have primary program management responsibility.

- 10.2 Loss of Certified Supervisor:** If a park loses its certified Historic Weapons Supervisor, the superintendent must coordinate with the Regional Historic Weapons Coordinator and Lead Regional Inspector to suspend the park's program and by:

- Ceasing all historic weapons firing demonstrations.
- Transfer or destroy the park's inventory of black powder, ignition devices, and/or ammunition by a certified Historic Weapons Supervisor. See the appropriate Black Powder Safety Data Sheet for safety information regarding black powder destruction.
- Secure all historic firearms by limiting access to one employee for inventory purposes only.
- Submitting signed documentation of historic weapons program suspension to the Regional Coordinator and Lead Regional Inspector.
- Whenever possible, a Historic Weapons Supervisor should take these actions in coordination with the superintendent before they depart from the park in question.

The superintendent may seek to establish a written agreement with a Historic Weapons Supervisor from another park to assume magazine inspection responsibilities and firing program supervision to avoid termination of their program. All historic weapons program requirements must be met under such an agreement. The superintendent may establish a written agreement with a Historic Weapons Supervisor from another park to assume quarterly magazine inventory responsibilities and request an exemption for designated employees to perform weekly exterior inspections until the next historic weapons supervisor training course. Exemptions will be requested and reviewed on a case-by-case basis by the WASO Historic Weapons Program Manager and ADIEV.

- 10.3 Assistance to Other NPS Areas:** A park may request a certified Historic Weapons Supervisor from another park to assist with special events or to manage historic weapons firing demonstrations on a temporary basis due to the loss of certified personnel. The request should include a description of the demonstration program and types and uses of the historic weapons involved. The request will be in writing and signed by the superintendent. A request for assistance by a superintendent authorizes the Historic Weapons Supervisor to enforce all NPS safety standards. Unless otherwise negotiated, the requesting park will pay for the Historic Weapons Supervisor's travel.

- 10.4 Assistance to Non-NPS Organizations:** Certified historic weapons supervisors may provide information about NPS historic weapons training standards, manuals, policies and related

information to other agencies, organizations, groups and individuals. Historic Weapons Supervisors shall not supervise firing demonstrations, battle re-enactments, ceremonial salutes or similar activities taking place on non-NPS property sponsored by other agencies or organizations. Under no circumstances shall NPS historic weapons or equipment be loaned to other agencies/organizations for use in demonstrations not sponsored and managed by the NPS.

- 10.5 Off-Site Demonstrations:** Off-site firing and human powered weapons demonstrations conducted by qualified NPS staff or volunteers are permitted. All requirements of the NPS Historic Weapons Safety Standards will be followed, including the prohibition of battle reenactments in 2006 NPS Management Policies (7.5.8 & 7.5.9).
- 10.6 Report of Accidents and Incidents:** Historic Weapons Supervisors will report all injury and property damage accidents using the Safety Management Information System within 24 hours. Historic Weapons Supervisors will report all injury/property damage accidents and significant incidents to their Regional Inspector and Regional Coordinator within 48 hours of the incident. A significant incident is defined as any occurrence in which the safety of a demonstrator may have been placed in jeopardy, an incident resulting in property damage, or an incident, which may have service-wide safety implications.
- 10.7 Annual Historic Weapons Program Summary:** The park's Historic Weapons Supervisor will submit an annual program summary that includes the number of demonstrations presented, number of visitors attending those programs, number of volunteers and hours contributed, staff time devoted to historic weapons programs and expenditures through the Historic Weapons Program database.
- 10.8 Annual Program Inspection Certification:** Every park will submit the following items to their Regional Inspector on an annual basis and include all documents as attachments on their park program card in the Historic Weapons Program database.
- Copy of Historic Weapons Supervisor(s) certification card(s) signed by the Superintendent.
 - Copy of the park's Misfire Plan.
 - Completed Program Management & Black Powder Storage and Handling, Range Safety, and Weapons Storage checklists signed by the Lead Historic Weapons Supervisor and Superintendent.
 - Certification of historic weapons inspections signed by the Lead Historic Weapons Supervisor.
- 10.9 On-Site Inspections:** Regional Inspectors will conduct an on-site inspection of every park in their region within a three to four-year period to ensure the effectiveness of annual reporting. Parks will work through the Regional Historic Weapons Coordinator to plan their inspections. Regional Inspectors may not inspect their own parks. If there is not a Regional Inspector available within a region to provide an inspection, parks may work through their Regional Coordinator to request one from another region. Unless otherwise negotiated, the requesting park will be responsible for paying for the inspector's travel.

11. Episodic Event Volunteers

11.1 Required Supervision: To provide proper safety supervision, a minimum ratio of one certified Historic Weapons Supervisor per forty small arms demonstrators and/or two artillery pieces is required. Additional Historic Weapons Supervisors may be required for complex events.

11.2 Competency Requirements: All episodic volunteers who demonstrate using historic weapons will operate under a volunteer agreement. 29 CFR § 553.101 defines a volunteer as “An individual who performs hours of service for a public agency for civic, charitable, or humanitarian reasons, without promise, expectation or receipt of compensation for services rendered, is considered to be a volunteer during such hours.” All persons involved in these demonstrations shall demonstrate competency to the Historic Weapons Supervisor in the use of the weapon by successfully meeting the criteria in the appropriate weapon manual and demonstrating proficiency in drill and misfire procedures.

11.3 Written Agreements: The park will provide all episodic event volunteers with a copy of the Standards for Historic Weapons Firing in Areas Administered by the NPS and the appropriate approved weapons manual(s) at least 30 days prior to the program. It is the responsibility of the individual or group to certify in writing that they have read and will adhere to the standards they have received from the park. This written agreement must be received by the park prior to the demonstration. Any violation of the standards may result in immediate cancellation of the demonstration, removal of the individual or groups from further weapons firing demonstrations in the park and terminating all relevant volunteer agreements.

11.4 Weapons and Ammunition Provided by Volunteer Groups

Pre-1898 Black Powder Weapons:

- Groups demonstrating approved pre-1898 firearms and artillery may use their own reproduction weapons provided they pass an inspection administered by the Historic Weapons Supervisor.
- Groups displaying approved pre-1898 firearms and artillery may use their own weapons provided they pass an inspection administered by the Historic Weapons Supervisor.
- All black powder brought into an NPS area by episodic volunteers for use in firing demonstrations will be in the form of prepared cartridges and placed under NPS supervision.
- Cartridges will be prepared in accordance with standards described in the relevant weapons manuals.
- Bulk or loose powder is prohibited.

Post-1898 firearms: Only park-purchased blank ammunition will be used in weapons demonstrations.

Human powered weapons:

- Groups demonstrating human powered weapons must adhere to all demonstration and range safety policies outlined in this reference manual and signed park SOP. All HPW must be inspected by the park's Human Powered Weapons Manager following the appropriate checklists in their park's signed SOP.
- All human powered weapon ammunition must be inspected by the Human Powered Weapon Manager for any defects and that the proper projectile points are being used.

11.5 Inspections: At the beginning of each day, the Historic Weapons Supervisor/ Human Powered Weapons Manager will give a thorough visual inspection to each weapon used in a firing demonstration. Visual inspection will follow the appropriate checklist (See Historic Weapons Inspection Checklists). Members of groups shall submit to an on-site safety inspection of their cartridge boxes and other equipment before being permitted to participate in NPS demonstrations. This requirement applies to non-firing events.

11.6 Demonstration Supervision: A certified Historic Weapons Supervisor/ Human powered Weapons Manager must personally observe and supervise all firing demonstrations conducted by episodic volunteers within the park's boundaries. The Historic Weapons Supervisor must be prepared and authorized by the park superintendent to act immediately on any violation of NPS policies including canceling the program and removing the individual or group from further firing demonstrations as appropriate.

12. Process for Responding to Non-Compliance with Historic Weapons Program Policies

12.1 Review Team Process: In collaboration with the Historic Weapons Program Manager, a team of at least one regional inspector, a regional safety manager, and the regional historic weapons coordinator (Interpretation Program Manager) will investigate suspected incidents of non-compliance. When possible, a regional inspector from a different region will be brought in to conduct the investigation to maintain objectivity. If a regional inspector from a different region is not available, the regional historic weapons coordinator will ensure that the selected regional inspector did not conduct the most recent park regional inspection. The investigation team will determine the level of the offense based on the table on the following page. In all instances, the investigation team will provide a summary of their findings and inform the park superintendent and Historic Weapons Program Manager of their recommended penalty.

12.2 Level One Offense: Verbal or written warning issued to the park's historic weapons supervisor by the Investigation Team with a copy to the Park Superintendent and Regional Historic Weapons Coordinator.

12.3 Level Two Offense: The Investigation Team will send a recommendation to the park superintendent and WASO IEV. Upon approval, the superintendent will issue a Suspension of Program Action. If deemed necessary based on the nature of the violation, the national Historic Weapons Program Manager will make a recommendation to the AD IEV who may choose to issue a Suspension Action. Such action will be taken if the investigation team feels that there is

a risk of further non-compliance at the park level. These consequences relate solely to historic weapons program and not to individual employee conduct determinations. Authority remains with superintendents and supervisors of record to evaluate if the nature of the violation also constitutes an employee performance or conduct issue.

12.4 Appeal Committee: Parks may appeal their Suspension Action. A committee composed of the lead historic weapons training instructors, appropriate regional historic weapons coordinator, and the AD IEV will review the appeal.

12.5 Category & Type of Violations in Historic Weapons Programs

- **Unsafe Practice:** examples — failure to use proper safety equipment, clothing etc.; program has had several near-misses or accidents; poor range safety
- **Poor Storage Management:** examples — lost or stolen weapons or powder/primers; records not kept up to date; magazine kept in poor condition; weapon damage from lack of care
- **Presenting Historic Weapons Demonstration Activities Contrary to Director's Orders:** examples — opposing line firing; taking of casualties; simulated combat; pyrotechnic displays; park has no approved interpretation plans/documents on use of historic weapons as interpretive demonstration
- **Conducting Programs Outside of Certification:** examples — working outside of century trained; using weapons not listed as approved historic weapons
- **Unauthorized Personnel Participation:** example — individuals or groups not trained in historic weapons but take part in demonstrations
- **No Current Certification:** examples — failure to secure program with loss of personnel certified to lead program; park conducting historic weapons program without seeking certification

12.6 Examples of Violations by Category

Level 1 Examples: Program has experienced several near-misses or accidents; records are not kept up to date; magazine kept in poor condition; weapon damage from lack of care; annual summary or other required reporting not done on time; failure to secure program with loss of certified personnel; failure to keep current on inspections

Level 2 Examples: Failure to use proper safety equipment, clothing, etc.; range safety violations; failure to follow established storage procedures; working outside of certifications(s); magazine does not meet minimum standards; opposing line fire demonstrations, simulated combat, taking of casualties; failure to follow established acquisition and inspection procedures; use of personnel not trained in historic weapons; park conducting historic weapons programs without certification or assistance of the same.

12.7 Penalties by Category

Level 1 Penalties:

- First offense: Verbal Warning (documented and kept on file for one year)
- Second offense: Written warning kept on file for duration of the HW Supervisor's certification (up to four years)
- Third Offense: Treated as Level 2 Violation

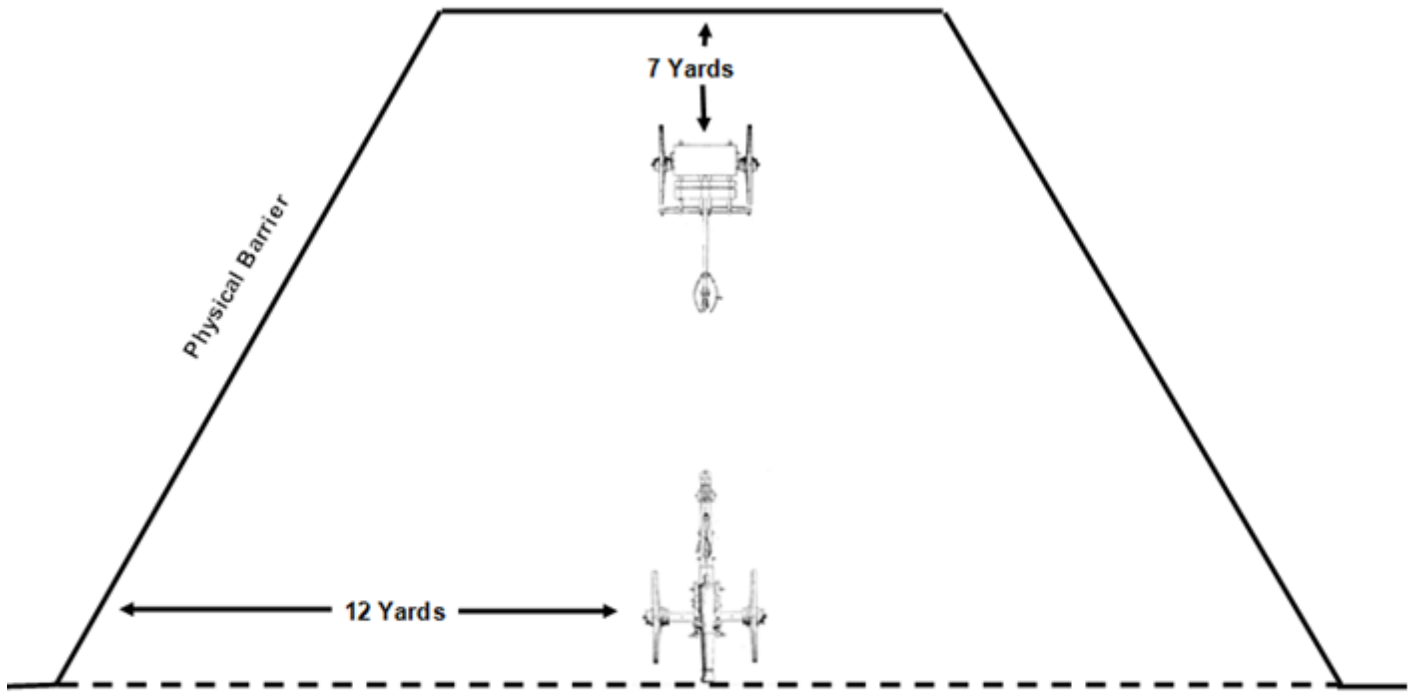
Level 2 Penalties:

- First Offense: Suspension of program until onsite inspection by regional inspector
- Second Offense: Suspension of program until next certification training and successful onsite inspection

Appendix A – Approved Ranges for Historic Weapons Demonstrations

Artillery Demonstrations

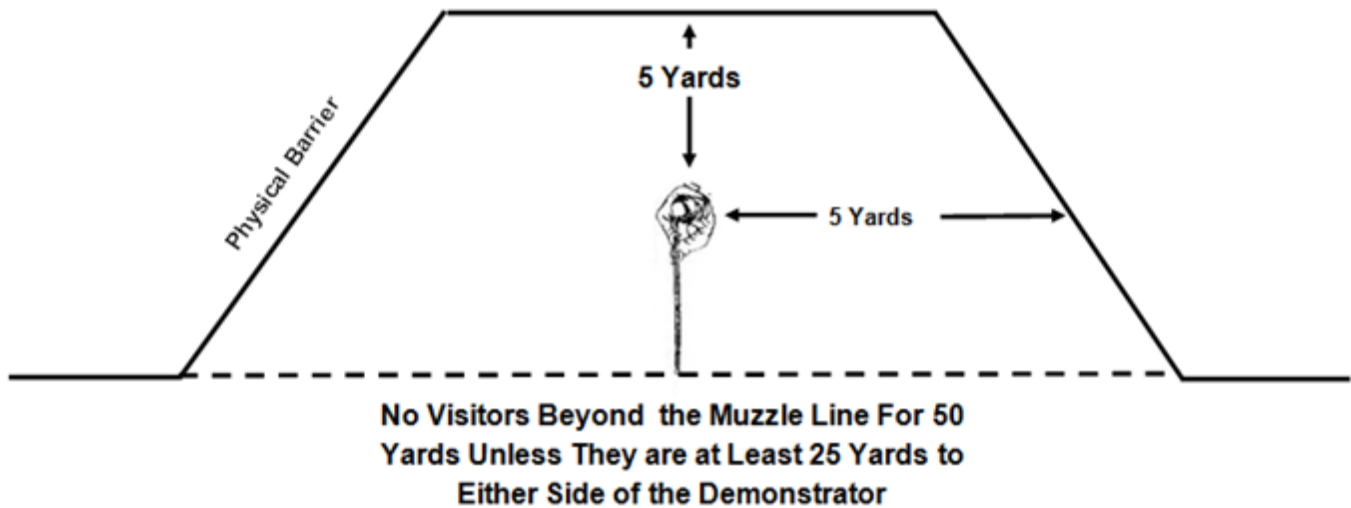
- Visitors must be separated from the demonstration area by a physical barrier.
- Visitors may not be located anywhere beyond the muzzle line for a distance of at least 50 yards to the front and both sides of the piece.
- Minimum Distance Between Limber and Visitors: 7 Yards
- Minimum Distance Between Cannon and Visitors: 12 Yards



**No Visitors Beyond the Muzzle Line For 50
Yards Unless They Are At Least 50 Yards
to Either Side of the Piece**

Small Arms & Human Powered Weapons Demonstrations

- Visitors must be separated from the demonstration area by a physical barrier.
- Visitors may not be located anywhere beyond the muzzle line for a distance of at least 50 yards in front of the demonstrator during a small arms or human powered weapons demonstrations. If visitors are located beyond the muzzle line of firearms demonstrations, they must be at least 25 yards away from the closest weapon.
- No one will be permitted beyond the release point during a human powered weapon demonstration.
- Minimum Distance Between Closest Demonstrator and Visitors — 5 Yards
- Human powered weapon ranges must feature a target as an aiming point and stop for projectiles.
- The use of a backstop is required for human powered weapon ranges.



Appendix B – Tables of Maximum Loads

Black Powder Small Arms

All loads will be Ff Grade black powder unless otherwise specified.

17th Century

Weapon Type	Caliber	Maximum Blank Load
Matchlock	.60 to .75 (varies)	125 grains

18th Century

Weapon Type	Caliber	Maximum Blank Load
“Brown Bess” Musket	.75	125 grains
Charleville Musket	.69	125 grains
Kentucky Rifle	Varies	90 grains
Pistols and Horse Pistols	Varies	35 grains

19th Century

Weapon Type	Caliber	Maximum Blank Load
U.S. Musket (Percussion Conversion)	.69	75 grains
U.S. Rifle, M1841 and 1855	.54 and .58	60 grains
U.S. Musket, M1842 (also Rifled Musket)	.69	75 grains
U.S. Rifle Musket, M1855-64	.58	60 grains
British Enfield Rifle Musket, P1853 (also Rifle, P1858, Musketoon)	.577	60 grains
Percussion Revolver	.36	20 grains Fffg
Percussion Revolver	.44	28 grains Fffg

19th Century Metallic Cartridges

Weapon Type	Caliber	Maximum Blank Load
U.S. Springfield Rifle	.50	70 grains
Sharps Carbine	.50	70 grains
U.S. Springfield Rifle	.45	70 grains
U.S. Springfield Carbine	.45	55 grains
Colt’s Revolver, M1873	.45	28 grains Fffg
Smith and Wesson Schofield Revolver	.45	28 grains Fffg
U.S. Springfield Rifle	.50	70 grains

Note: Maximum blank loads for weapons not identified on this chart shall not exceed the documented historic load for firing a projectile.

Black Powder Artillery

All loads will be Cannon Grade or Fg black powder unless otherwise specified.

18th Century

Weapon Type	Caliber	Maximum Blank Load
Swivel Gun	2 pounder	4 ounces Fg
“Grasshopper”	3 pounder	6 ounces
British Light Gun	6 pounder	12 ounces
British Field Howitzer	5.8 inch	10 ounces
Iron Gun	3 pounder	6 ounces
Iron Gun	4 pounder	8 ounces
Iron Gun	6 pounder	10 ounces
Iron Gun	12 pounder	16 ounces
Howitzer	8 inch	16 ounces
Howitzer	8.76 inch	16 ounces
Iron Gun (Armstrong)	9 pounder	16 ounces
Iron Gun (Armstrong)	18 pounder	16 ounces
Iron Gun (Armstrong)	24 pounder	16 ounces

19th Century

Weapon Type	Caliber	Maximum Blank Load
M1841 Gun	6 pounder	10 ounces
M1841 Field Howitzer	12 pounder	10 ounces
M1841 Mountain Howitzer	12 pounder	8 ounces
M1857 Gun-Howitzer (“Napoleon”)	12 pounder	16 ounces
Parrott Rifle	3 inch	10 ounces
Ordnance Rifle	3 inch	10 ounces
Lyle Gun	—	1.5 ounces Fg

Note: Maximum blank loads for weapons not identified on this chart shall not exceed 3.5 ounces of Cg powder for every 1 inch of chamber diameter up to one pound.

NO CANNON WILL BE FIRED WITH A CHARGE GREATER THAN ONE (1) POUND.

Appendix C – Black Powder Storage Requirements

- Magazine storage is under the supervision of an officially trained and certified career, career-conditional or term employee, 21 years of age or older.
- Magazine storage responsibilities must be designated in writing by the Superintendent.
- Temporary absences of the responsible employee shall be delegated in writing to act during this period.
- Magazines must receive a visual exterior inspection every seven days.
- Stored black powder, ammunition, and ignition devices will be inventoried every three months (quarterly).
- "Inhabited buildings" are not used for magazines or for loading operations.
- Historic structures used for National Park Service Class 2 magazines will be supported in writing, approved by the Regional Director, and be on file in the park.
- Parks may store no more than the amount black powder projected to be expended in a twelve-month period with maximum storage limit of 300 pounds.
- Powder containers are dated.
- Powder is consumed within two years.
- Powder inventory log is kept current and up to date including documentation of quarterly inventories.
- Containers are not placed directly against interior wall or vent.
- Containers are placed so content identification is visible for inspection and inventory.
- Magazines are kept clean and floors are swept.

Class 1 Magazine (Outdoor Storage of More than 50 pounds)

- Location of National Park Service Class 1 Magazine is consistent with the *National Park Service Table of Distance for Storage of Black Powder* below.
- "NO SMOKING" signs are clearly marked around the magazine, or within any room containing an indoor magazine.
- No openings are present except door and ventilation.
- Adequate drainage provided.
- Interior walls are constructed of or covered with a non-sparking material.
- Floors are constructed of or covered with a non-sparking material.
- Foundation constructed of masonry. If wood piers are used, the space under the building is enclosed with metal.
- Except for fabricated metal roofs, the outer roof is to be covered with no less than 26-gauge iron or aluminum, fastened to at least $\frac{7}{8}$ th inch sheathing.
- Doors to be constructed of not less than $\frac{1}{4}$ inch steel plate lined with two inches hardwood.
- Hinges and hasps attached by welding, bolting or riveting. Hinges and hasps cannot be removed when door is closed and locked.
- Two locks are required:
 - (2) mortise locks, or
 - (2) padlocks with $\frac{3}{8}$ in. hasps on separate hasps, or
 - mortise lock and (1) padlock, or
 - A mortise lock that requires two keys to open, or
 - A three-point lock.
- If padlocks are used, they must be covered with $\frac{1}{4}$ inch steel hoods.
- Vents are screened. Side wall vents must be offset.
- No exposed metal on interior. All ferrous metal nail heads are covered.
- Lighting is provided by battery activated safety lantern. Electric lighting must meet "National Electric Code" Class III installations (hazardous areas).
- Dry grass, brush, small trees or rubbish is kept at least 25 feet in all directions from magazine.
- Volatile materials are kept at least 50 feet from magazine.
- **Masonry construction:** Hollow masonry units filled.
- **Fabricated metal wall construction:** Not less than 14-gauge thickness. Walls lined inside with brick or hardwood no less than 4 inches, or sand 6 inches of sand fill.
- **Wood frame construction:** Exterior is covered with iron or aluminum not less than 26 gauge. Walls to be no less than six inches thick, filled with sand or weak concrete.

Class 2 Magazine (Indoor Storage of 50 pounds or less)

- “NO SMOKING” signs are clearly marked around the magazine, or within any room containing an indoor magazine.
- Door overlaps sides by at least one inch.
- Hinges and hasp welded, riveted or bolted.
- Padlock has 3/8-inch shackle.
- No exposed metal on interior. All ferrous metal nail heads are covered.
- Lighting is provided by battery activated safety lantern. Electric lighting must meet “National Electric Code” Class III installations (hazardous areas).
- Painted red with 3-inch letters on sides and top: “EXPLOSIVES Keep Fire Away.”

Wood Magazine: Constructed of 2-inch hardwood and covered with metal no less than 20 gauge.

Metal Magazine: Constructed of no less than 12-gauge steel, lined with at least 1/2 inch plywood or hardboard.

National Park Service Table of Distances for Storing Black Powder

Powder Stored (pounds)	Inhabited Buildings, Public Highways, and Passenger Railroads (feet)	Other Magazines (feet)
0-25	75	10
26-50	85	15
51-75	95	20
76-100	105	25
101-125	115	30
126-150	125	35
151-175	135	40
176-200	145	45
201-225	155	50
226-250	165	55
256-275	175	60
276-300	185	65