

# NCWC Safety Rules

January 15, 2015

Dates of revisions after May 2008 noted in ( )

## Article VII. Safety Rules

### A. Preface.

1. This document sets out the specific safety rules for the Northwest Civil War Council (NCWC) to be observed at all events. While we have attempted to cover most situations, it would be impossible to cover them all, therefore, individuals must exercise their own common sense at all times.
2. We are attempting to portray a lifestyle and activities, which are inherently dangerous. Since we are dealing with potentially dangerous weapons and activities, we have developed procedures concerning our battlefield and camp life. We have done so because it is our intent to provide a safe and enjoyable experience for you and every member of your family. All activities must be carried out with the understanding that safety for yourself and your comrades is a **FIRST PRIORITY and ULTIMATELY you are responsible for your own safety!**
3. These rules cover the use and storage of the small arms (rifles, muskets, carbines and pistols), artillery, signaling devices, ground charges, air bursts, edged weapons, and horses (or mules) used in NCWC activities. Additional rules apply to horse drawn vehicles and are covered in a separate document. Whenever any of these items are being used, the user must remember that they are all potentially dangerous items if not handled properly.
4. Safety tests are required for anyone, NCWC member, visitor, or guest, who uses or stores any of the items covered in these safety rules, or who participates at any place where weapons are being used or discharged. Safety tests must be passed upon joining and during every odd-numbered year. (4/09, 5/10). A safety test will be passed when all questions are answered correctly. Drivers of horse-drawn vehicles will have an additional skills test which they must have passed on a yearly basis to enable them to drive a vehicle at events. (2/19/2009, 1/16/2014. See Rule F.1 for other equine evaluation requirements)
5. Unit commanders are required by the NCWC to keep the completed safety test of all members of their unit, dated, scored, signed and filed for easy access at all events should questions arise. (2/19/2009, 1/16/14)

### B. General Behavioral Rules.

1. Each member is responsible for their actions and safety. If a situation arises that is not covered by these safety rules you must use your common sense.
2. Safety is the first priority of the NCWC and as such all members must have a thorough knowledge of these safety rules. It is the responsibility of their commanders to ensure that they do.
3. Possession and/or use of illegal drugs or any other criminal act is prohibited and will result in immediate expulsion from the event and the NCWC as well as being referred to local law enforcement officials.

4. Alcohol may be used only in moderation and when the following conditions are met:
  - a. In compliance with any local regulation.
  - b. Only after the last engagement when weapons are secured.
  - c. Only after the public has departed.
  - d. At backcountries, only during those periods of time which were decided upon prior to the start of the event. For example in the evening between agreed upon hours.
5. The use of alcohol in violation of these rules will result in suspension from the event and such additional discipline as is provided in the bylaws (See Article VIII of the NCWC Bylaws).
6. The use of prescription drugs places upon the user the responsibility to see that he/she is not impaired in judgment or function. Failure to do so may result in the imposition of restrictions or sanctions.
7. Any verbal provocation or physical abuse is strictly prohibited at any time and will result in discipline as is provided in the bylaws (See Article VIII of the NCWC Bylaws).
8. Smoking and open flames are prohibited within 25 feet of exposed powder, cartridges, and charges or at any time while under arms.
9. Fires must be attended by a member of the NCWC while they are lit. A bucket of water should be kept near every fire at all NCWC events.
10. All fires must be extinguished before being left unattended.
11. All fires must be located a safe distance from combustible materials such as tents and flys. Care must be taken when working around a fire to ensure that clothing does not catch fire.
12. NO ball ammunition may be brought to a battle reenactment area. Ball ammunition shall be considered any reproduction or original projectile that could be fired from any weapon used at a battle reenactment.
13. Discharging a weapon in camp is **prohibited** except in planned scenarios that have been approved by all applicable battalion commanders, including the Civilian Advocate if firing in civilian camps is planned.
14. At no time will a member pick up another member's weapon without permission of said member. The only exception will be if it is evident that the member has lost it. The weapon must be turned over to the battalion headquarters immediately.
15. Colors or Standards will be considered captured when touched by opposing forces, and they will be immediately furled and sent to the rear with the color bearer.
16. At no time should a firearm be discharged directly at anyone.
17. Only fireworks authorized by the NCWC Board are allowed at any event. Personal fireworks are prohibited by Oregon state law at state parks.
18. No weapons (handguns, rifles, knives, bayonets, etc.), except sabers and dress swords, will be brought to any military ball.

### C. General Battlefield Rules.

1. Unit and Battalion Commanding Officers have overall responsibility for safety at events. They may delegate enforcement to Safety Officers; however, **ULTIMATELY** you are responsible for your personal safety and that cannot be delegated.

2. Weapons with flintlock or in-line percussion ignitions are expressly excluded from NCWC events.
3. Musket caps that have more than four wings shall not be used when firing in close order.
4. Powder should be inspected to ensure that no foreign objects are included in the powder prior to making rounds.
5. Ramrods and bayonets must be secured prior to entering the battlefield.
6. Any unit not represented at the Officers Call, to discuss the battle plan, may not participate in the battle, except by prior agreement.
7. Hand to hand combat will be permitted only by prior permission of the Battalion Commanders with notification to all units that will be engaged and REHEARSAL by all units and persons involved. Should you find yourself engaged in unrehearsed hand to hand you should retreat, if possible, or immediately become a simulated casualty. Loaded weapons must not be brought into a hand to hand scenario.
8. Weapons may not be fired without the Unit Commander's permission.
9. Cap firing does not require permission but must be done in a designated capping and clearing area away from the public.
10. Because of the recognized inherently dangerous nature of capping and/or discharging weapons in and around camp areas Battalion Commanders shall designate and mark a specific area for the clearing and firing of weapons between battles. This area will not be on the battlefield since the battlefield is the main show area for other activities. All malfunctioning and loaded firearms will be handled in this firing area only.
11. Those who are representing simulated casualties may never fire.
12. Skirmishers may fire from a prone position if they keep their muzzles well elevated.
13. Any firearm with a barrel less than 39 inches shall not fire from the rear rank except if the front ranks are kneeling, as in dismounted cavalry.
14. Pistols and long arms will not be a full-cock during maneuvering on the battlefield or in a charge.
15. All long arms will be cleared at the end of each battle.
16. Pistols may be carried loaded off of the battlefield as long as they are not removed from the person. Once they are removed from the person, they should be discharged, or the caps removed and the pistol secured.
17. A range of 30 feet is accepted as the reasonable and prudent distance to fire towards opposing troops unless otherwise practiced.
18. Cannons will not fire when troops are in front of the blast cone and are closer than 75 feet.
19. Frontal charges on loaded cannons are prohibited. Members of an artillery gun crew will only support their implements on the wheel hubs when the cannon is loaded.
20. "Mounted" vehicles-- artillery pieces, limbers, caissons or wagons, drawn by horses, mules or oxen—must always have a clear route off the battlefield in case of an emergency. There should always be a clear route between the battlefield and cavalry or artillery camps.
21. Any member may call "**STOP ACTION**" at any time if the member witnesses any unsafe condition. A cease fire and a hold on all movement will occur if any unauthorized person, such as a spectator, comes onto the field during a battle, if that person cannot otherwise be controlled.

22. The cry of “**MEDIC**” is reserved for real (actual) emergencies only. In event of an actual injury, first aid is to be quickly supplied with the least amount of fanfare. **DO NOT MOVE THE SERIOUSLY INJURED!**
23. At the discretion of the Company Commander, combatants may be as young as 12 years old. (January 15, 2015)
24. Skirmishes, battles and raids are prohibited at public events except when coordinated between the Battalion Commanders and the site host. At backcountries raids can be expected 24 hours a day.

#### **D. General Weapons Safety Rules.**

1. All weapons must be clean and in good repair prior to use.
2. Extreme care must be taken in ensuring a weapon is clean between live firing and participation in a battle reenactment. A scraper should be used to ensure that no fragments of a bullet (specifically a bullet skirt) remain in the barrel.
3. All weapons and cartridges will be inspected by the battalion commanders or their representatives at each event prior to the first battle each day. Any weapon found to be unserviceable shall not be loaded or fired until it has been approved as fully functional by an authorized inspector from their battalion command.
  - a. Muzzleloading weapons will be determined to be clear of debris by “sounding steel”. This will be done by dropping the ramrod in the barrel from about 4 to 6 inches from the breach. If there is no obstruction or debris, a ringing sound will be heard. If there is an obstruction or debris a “clunk” will be heard.
  - b. Breechloading weapons will be determined to be clear of debris by dropping the breechblock, or otherwise opening the weapon, and visually examining the barrel and breech for fouling, debris, or other obstructions.
  - c. Pistols will be inspected and determined to have a clear barrel and cylinder(s).
4. No item will be permitted in the cartridge box except blank cartridges.
5. Made-up blank cartridges, caps and black powder should be stored in a cool, dry place that is secure from access by children, flame, fire, or any source of high temperature.
6. Caps must be stored in their original retail container, cap pouch, or period correct ammunition packaging. They may not be stored in glass jars, paper boxes or other unsafe containers.
7. Blank cartridges must be carried on the battlefield in a leather cartridge box.
8. Percussion caps will be carried in historically appropriate cap containers on the battlefield.
9. Only black powder is permitted for use in firearms. Pyrodex and other smokeless powders are forbidden.
10. Unguarded weapons should not be readily accessible to the public during an event.

#### **E. Specific Weapons Safety Rules.**

1. Long Arms.
  - a. Longarms between .50 and .75 caliber will be loaded with FFg or FFFg black powder **ONLY**. (12/16/2010)
  - b. During loading, the muzzle must be pointed in a safe direction.

- c. Follow the procedures given by your company commander for loading the weapon. To help prevent premature ignition, do not remove the expended cap until ready to re-cap, i.e. until after the powder has been settled.
- d. No ramrods will be drawn during battles. Ramrods may be used in firing demonstrations when no opposing troops are present, with company commander's approval.
- e. Powder flasks and powder horns may not be carried on the battlefield.
- f. Long arm cartridges must conform to the civil war period and be made of paper (exception for hard-cased carbine rounds; see 1k below). No staples, tape, string, glue or other methods of securing the cartridge are used. They will be made prior to battle and contain no more powder than listed as follows:

Caliber	Maximum Charge
10 gauge Shotgun	130 grains
.69 Caliber	90 grains
.54/.58 Caliber	75 grains
.50 Caliber	60 grains

**These loads are the maximum allowed and should not be regarded as a suggested load for the weapon size.**

- g. When loading, only the powder will be placed in the barrel, no paper. The only exception is when cigarette paper is used for breech-loading carbines.
  - h. All long arms will be cleaned at the end of each day.
  - i. Long arms will be capped off prior to use after cleaning to ensure the touchhole is clear. To do this a cap will be placed on the cone and the muzzle lowered near the ground and the weapon discharged. If the touchhole is clear a movement of grass, leaves, and dust will be noticed.
  - j. Long arms that fire hard-cased cartridges with a fixed primer must have their firing pins checked to ensure that they are free floating.
  - k. Carbine and other shoulder arm hard-cased cartridges should conform to Civil War specifications. Hard-cased ammunition is sealed only with compressed Cream of Wheat, or with "crumbling" floral foam," *but not both*. Hard-cased crimped ammunition (metal or plastic) should not be reused to prevent potential fragmentation.
  - l. Long arms will only be loaded at designated times before each battle or demonstration, and at no other time when the public is present.
  - m. In the event a long arm malfunctions on the battlefield, the soldier carrying that long arm will follow the following procedure:
    1. With the muzzle pointed in a safe direction (preferably with the muzzle pointed up), remove the failed cap or cartridge and replace it with another.
    2. If the weapon fails to fire, repeat step 1, use your nipple pick to clear the touchhole, and again try to discharge the weapon.
    3. If your weapon still fails to discharge, dump your powder and become a simulated casualty.
2. Revolvers & Pistols.
- a. All revolvers and other pistols smaller than .50 caliber will be loaded with FFFg black powder ONLY. (12/16/2010)
  - b. Specified charges for revolvers shall not exceed those in the table below.

Caliber	Maximum Charge
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.31 Caliber	15 grains
.36 Caliber	20 grains
.44 Caliber	30 grains
.44 Cal. Colt Dragoon	40 grains
Single shot of any Caliber	25 grains

- c. Pistol chambers may be loaded and sealed in only one of two ways.
    - i. Cream of Wheat method: Chambers will be charged with the correct amount of black powder for the caliber of pistol. The remainder of the chamber will be filled with cream of wheat and packed tightly. No other material is needed to seal the chamber. The use of grease and cream of wheat must be avoided since it will create a hard plug.
    - ii. Floral foam method: Chambers will be charged with the correct amount of black powder for the caliber of pistol. “Crumbling” floral foam will be placed over the powder and compacted.
    - iii. Caps may be placed on the cylinder once the chambers are completely loaded.
  - d. The use of grease is strictly prohibited.
  - e. Powder flasks may never be carried at public events. Powder flasks may be carried on the person only at backcountry events, and then only for the loading of revolvers.
  - f. Pistols are reloaded on the battlefield only with prepared cartridges conforming to the Civil War period, or spare cylinders.
  - g. Those using revolvers may carry extra cylinders provided they are properly loaded and carried securely in a leather pouch.
  - h. Pistols must always be carried in holsters with secured flaps or thongs when not in use. Loaded pistols must always be kept on the person.
  - i. If a single shot pistol is equipped with a ramrod it may never be drawn during a battle.
  - j. Single shot pistols will not use a wadding material.
3. Sabers, Swords, Bayonets & Knives.
    - a. Edged weapons will only be drawn on the command of the unit commander.
    - b. No edged weapon will be leveled or pointed at or make contact with another participant. In a scripted combat any edged weapons will be kept within 45 degrees of vertical at all times.
    - c. Sabers, swords and bayonets will have dulled edges and points.
    - d. Knives may not be drawn on the field, and must be secure in their sheaths. This means that if the sheath is turned upside down, the knife will not move or fall out.
    - e. Prior to the orders “arms at will” or “route step” bayonets must be unfixed.

**F. Equine Rules and Procedures.** (January 16, 2014 unless otherwise noted)

1. All persons, civilian and military impressions, wishing to participate in any NCWC equine related activities, e.g. parades and scenarios on and off the field of battle, must (1) take the NCWC Equine Activity Evaluation, or NCWC Driving Skills Test, if applicable; (2) only participate up to the level they have successfully completed on the evaluation; (3) read, understand and agree to the Responsibilities and Expectations for Participants in NCWC Equine Activities; and (4) sign the NCWC Liability Wavier for Equine Activities. (A minimum of the first 4 (four) skills of the NCWC Equine Activity Evaluation are required to simply be on the grounds with a

- horse.) See NCWC Regulations for Horse-Drawn Vehicles for additional rules and testing that apply to horse-drawn vehicle drivers and passengers.
2. Participants in equine activities must be evaluated on each horse they intend to use. The NCWC Equine Activity Evaluation is ongoing and applies indefinitely, unless:
    - a) the participant changes horses,
    - b) the participant or horse has a lapse of one or more full reenacting seasons, or
    - c) the participant or horse is asked by the Brigade/Battalion Cavalry (or battalion equivalent) Commander or unit commander to re-evaluate.
  3. All participants in equine activities from reciprocal organizations will obtain the host unit's permission and be evaluated either by presenting their organization's evaluation credentials or taking the NCWC Equine Activity Evaluation before being allowed to participate in equine activities. Notification of non-NCWC members must go to that unit's Brigade/Battalion Cavalry Commander (or equivalent). The Battalion Cavalry (or battalion equivalent) Commander will then notify the host unit of the additional participant's acceptance in equine scenarios.
  4. All pay to play participants who wish to participate in equine activities must comply with all requirements in Administrative Rule VII. F. 1 before being allowed to participate in equine activities. Notification of non-NCWC members' request for participation must go to that unit's Brigade/Battalion Cavalry (or battalion equivalent) Commander. The Cavalry (or battalion equivalent) Commander will then notify the host unit of the additional participant's acceptance in equine scenarios.
  5. Commanders of mounted units shall designate mounted skills evaluators. (9/13/12) The evaluator(s) for each unit shall be a horse-knowledgeable adult member of that unit or another unit within that company's battalion. This evaluator and/or the unit commander are responsible for that unit's equine safety and evaluation as well as trooper, NCO and Officer instruction. (Additional qualifications apply for evaluators of Driving Skills Tests, see NCWC Regulations for Horse-Drawn Vehicles.) (1/16/14) Mounted members of non-mounted units must use evaluators from mounted units. Unit commanders or evaluators cannot evaluate themselves, and must use an approved evaluator from their own, or another unit. (9/13/12)
  6. Current evaluations must be maintained by the Unit Commander. A copy of each evaluation must be supplied to that company's Brigade/Battalion Cavalry (or battalion equivalent) Commander.
  7. No horse shall be handled, ridden, or driven at any event except by NCWC members, pay to play event members, or members of reciprocal organizations who have signed the NCWC Liability Waiver for Equine Activities, completed the appropriate levels of the NCWC Equine Activity Evaluation or Driving Skills Test, or provided an acceptable equivalent evaluation from their reciprocal organization and read, understand and agree to the Responsibilities and Expectations for Participants in NCWC Equine Activities.
  8. If the owner of a horse allows another person to ride, drive, or handle his horse at NCWC events, he shall make a reasonable effort to ascertain the suitability of his horse to the participant and obtain the unit commander's approval. The participant and horse must be evaluated by that unit's evaluator through levels 1 and 2 (at a minimum) of the NCWC Equine Activity Evaluation, or Driving Skills Test "C" for horse-drawn vehicle drivers).

9. The use of stallions is prohibited unless all of the following criteria are met: (a) the individual desiring to employ one agrees to take complete responsibility for its actions; (b) there are no objections from other horsemen who have their mounts at the event; (c) is placed in a secure enclosure when not in use.
10. All horse equipment must be used in a safe, humane and correct manner in accordance to the Code of Conduct Section III.D.
11. A “quick-release” knot will be used to tie horses by the halter lead.
12. Horses shall never be tied by the reins and link-straps shall be fixed to the halter, not the bit. (04/07).
13. A loose sling snap must be pushed under the mounted trooper’s belt and not left dangling. (04/07)
14. Horses may not be left unattended in camp. A horse guard shall be posted while the public is present. Those in charge of picketed horses or mules ensure that members of the public approach the animals from the front or side only, not from the rear, and only with permission.
15. Picket lines are to be kept taut. Saddled mounts should be tied so as to keep the saddle from catching the picket rope. There will be no fighting within 20 yards of picketing areas when in use.
16. If horses are kept on picket pins, they must be at least 30 yards away from tents and watched by a guard at all times.
17. Horses should not be chased if loose. They should be “hazed” in a non-threatening way towards other horses or their camp picket line.
18. An inspection for cavalry shall include all weapons and tack used and all items carried onto the battlefield. The horses’ hooves shall be inspected for loose shoes or lodged stones. (04/07)
19. Horses and mules must be ridden at a walk in camp or civilian streets, and when entering the battlefield via avenues through the public, and only by prior arrangement with battalion and/or civilian commanders. (04/07)
20. Riders must be at a walk any time they are within 30 feet of pedestrians, tented areas, or any camp; any time they are within 30 feet of the public, simulated casualties, or enemy ground troops; or when they are within 50 feet of horse drawn vehicles. The following exceptions apply: a) scenarios approved by all affected battalion commanders and practiced in advance; b) when riders are using cavalry lanes designated in advance by battalion commanders; c) when riders are acting as outriders for horse-drawn vehicles; d) riders who “take hits” off of horses.
21. Riders who take hits must either maintain control of the horse from the ground, or have a “pick-up” rider take control of the horse after the rider has dismounted from the saddle. This advanced equine activity requires the completion of the pertinent Level 5 specialized skills in the NCWC Equine Activity Evaluation.
22. Mounted troopers will not fire at less than a 60-degree angle from their horses’ ears and be aware of other troopers and horses around them.
23. Saber combat between mounted and dismounted troops is prohibited unless scripted and preapproved by Brigade/Battalion Command.
24. Riders must not let drawn sabers drop below the wrist during engagement.
25. Hand to hand saber combat between mounted participants can occur only if scripted in advance, approved by both battalion commanders and REHEARSED by all units, persons, and horses involved (04/09).



26. The Brigade/Battalion Cavalry Commanders have final say over who does and does not go on the field of battle. If a participant or unit is asked by the Brigade/Battalion Cavalry commander to stand down or leave the field of battle they will do so immediately. After the battle the Cavalry Commander will discuss with the Unit Commander the reason for the order and any training, skills or evaluating that may need to be addressed.
27. Safety will always take precedence over the authentic way of doing things with mounted troops if a conflict of methods arises.
28. No person may take the reins of another rider's horse while the rider is mounted. If a rider becomes a casualty or prisoner, the person leading the horse shall use the lead strap, and the rider shall keep the reins. (04/07)
29. The public in a controlled situation such as a talk or demonstration may touch a gentle horse. (04/07)

### **G. Artillery Safety Guidelines.**

1. Guidance for loading and firing of artillery by NCWC crews will be provided by the "National Safety Rules and Procedures for Shooting Muzzleloading Artillery" except as follows:
  - A. Dry sponging the bore will not be required.
  - B. A crooked shaft rammer will not be required.
  - C. A three minute waiting interval between rounds will not be required. The rate of fire shall be determined by the Artillery Battalion Commander or his designee.
  - D. All loading and firing demonstrations or drills must be approved by the Artillery Battalion Commander or his designee. (08/19/2010)
  - E. All artillery in the NCWC shall be loaded with Fg, Ffg, or Cannon grade blackpowder, or Reenactor powder ONLY. Ffg powder is to be used for blank fire ONLY. (01/20/2011; amended to include reenactor grade powder Sept 25, 2014)
2. The NCWC definition of artillery is: any form of cannon, howitzer, mortar or any other firearm that's original (full size) bore is greater than 1.5 inches. In this document, the terms "artillery" and "cannon" shall include all forms of these weapons.
3. All artillery used at NCWC events must be of period design and construction. The Artillery Battalion Commander "must approve all cannons used and will keep any cannon or crew off the field if he deems it unsafe." Guns with square breeches shall not be allowed to fire at NCWC events. (08/19/2010)
4. The minimum distance required between guns is determined by the area required by the gun crew to work the guns safely as determined by the Senior Experienced Gun Officer and/or the Ordinance Sergeant. A spacing of 20 to 25 feet between the nearest wheel hubs of adjacent pieces is suggested.
5. The placement of artillery is the responsibility of the Artillery Battalion Commander or designee.
6. Artillery will be permitted to fire with a minimum crew of 3 persons for each gun, except breechloading cannons. One member of each crew must be knowledgeable and experienced in artillery operation and care.
7. The use of live ammunition in an artillery piece will render the annual inspection of that gun null and void and make it necessary to repeat the new annual inspection process (see AR-VII-G-15) before the gun may be used at an NCWC event. (08/19/2010)

8. No projectiles of any kind or condition are to be fired at any NCWC battle or living history demonstration, unless prearranged and approved by the NCWC Board of Directors in writing.
9. At no time will any object of material be fired from a cannon if that object or material will pass over the 75-foot safety boundary, and thus endanger the participants and/or spectators during any NCWC event.
10. The artillery ammunition box will be placed 25 feet to the rear of its associated cannon and 25 feet from the spectator's line. The lid hinge must be nearest the cannon.
11. The artillery ammunition box is to be constantly manned when unlocked. When the box is not in use, it is to be removed from the field of operation and placed in a secure location.
12. Ammunition boxes must be fitted with self-closing lids, i.e., lids, which fall closed when your hand is removed. Lids may not be fitted with any hold-open device or prop.
13. It is recommended that artillery powder charges be kept in individual safety containers. Each charge must be placed in a leather haversack when being carried from the ammunition box to the cannon muzzle. The charges will not be removed from the containers and haversacks until they are to be placed in the cannon muzzle.
14. The thickness of the foil wrapper for the cannon powder charge is the responsibility of the Battery Commander, giving the highest regard and consideration for the safety of his crew, other crews and the public.
15. All artillery pieces used in NCWC events shall undergo an annual inspection prior to participation in any field event. This annual inspection shall be done by the Artillery Battalion Commander or his designee. Certificates of inspection shall be issued for each gun with one copy retained by the Artillery Commander and one copy given to the gun owner. The annual inspection checklist will include the following:
  - A. Bore Scoping (a copy of this will be retained on computer files for future reference)
  - B. Checking the tube for any signs of cracks or pitting.
  - C. Make sure the trunnion caps are in place and the trunnions turn freely.
  - D. Verify that the vent is of correct size and not worn out.
  - E. The Trail should be free of any rot.
  - F. The wheels should be tight with the proper dish and free of rot.
  - G. The limber chest must have a self closing lid with no loose powder ... properly equipped with safety equipment such as fire extinguisher, red flag for misfires, places for all tools and primers stored away from powder and rounds.
  - H. All equipment must be present in safe working order such as sponge of correct diameter which fits tightly into the breech of the gun ... the rammer and sponge head securely attached and a worm with the right twist and proper points.
  - I. Each gun must have a water bucket with correct gloves and hearing protection for each crew member. (08/19/2010)

16. All artillery pieces used in NCWC events shall be inspected each day by the Battery Commander and a report on each gun made to the Sergeant Major before morning parade. The daily inspection checklist will include the following:
  - A. Overall cleanliness and any evidence of tampering such as pins or keys removed, rocks or other foreign objects in the tube or rotting wood in any part of the piece.
  - B. Wheels tight and dished or any signs of stress to the barrel.
  - C. Implements present and in proper working order.
  - D. Limber chests clean and organized with proper equipment. (08/19/2010)
17. Artillery pieces from outside the NCWC (both with and without reciprocal agreements) must be inspected per conditions of paragraphs 15 & 16. In addition, units from outside the NCWC must inform the Artillery Battalion Commander directly of their intention to participate at our event and obtain his permission to attend. Failure to do this will result in denial of powder reimbursement and/or participation in combat scenarios for that event. (08/19/2010)
18. A rammer leaning against or upon the wheel hub is a clear signal that the cannon is loaded and ready to fire.
19. A cannon that has misfired can be extremely dangerous. When a cannon misfires the implements will be crossed over the barrel of the cannon. When continuing efforts to clear a cannon that has misfired are unsuccessful a red flag is the signal used to alert troops.

## **H. Ground Charge and Aerial Shell Safety Guidelines** (June 20, 2013)

### **1. Engineer Corps - Operator Qualifications and Permit Requirements**

- a. Engineer Corps. Preparation, placement and operation of ground charges shall be the responsibility of the Engineer Corps. The Engineer Corps shall be comprised of the NCWC Chief Engineer, and any assistant engineers. The Engineer Corps is a part of the Artillery Battalion.
- b. Chief Engineer. The NCWC Chief Engineer shall be at least 21 years old, and shall possess a federal explosives license. Ground charges require a federal explosives license for black powder. Aerial shells require a federal explosives license and a state pyrotechnic certification. The Chief Engineer shall be trained and experienced in the proper storage, assembly and use of pyrotechnic systems and materials.
- c. Assistant Engineers. The Chief Engineer may designate one or more assistant engineers, including senior assistant engineers who are federally licensed, certified or otherwise qualified to conduct and coordinate pyrotechnics at an event. Any assistant engineer will be at least 18 years old, and shall act under the supervision and control of the chief engineer or his designated senior assistant. Senior Assistant Engineers must be fully qualified and capable of coordinating an NCWC event in the absence of the NCWC Chief Engineer.
- d. The Chief Engineer or his designee will ensure that proper permits have been obtained for each event, from the office of the Oregon State Fire Marshall. A copy of the permit shall be available for inspection at the NCWC event.

- e. Site plans showing the placement of the special effects will be developed by the Chief Engineer or his designee in consultation with the event coordinators for each event, and the Battalion Commanders for Union, Confederate and Artillery Battalions, for submission as part of the required State Permit.

## 2. **General Safety Rules.**

- a. NFPA 1126. Insofar as applicable, Engineers will follow the provisions of NFPA 1126 Standard for the Use of Pyrotechnics Before a Proximate Audiences, 2011 Ed.
- b. Portable Fire Fighting Equipment. Four or more fire extinguishers shall be readily accessible while the pyrotechnics are being prepared for firing or fired. In all cases, at least two pressurized water, Class 2A extinguishers and two Class 10-BC extinguishers shall be provided.
- c. Magazine. A portable magazine for storage of pyrotechnics shall be provided, in compliance with AFT regulations.
- d. No Alcohol or Drugs. No personnel shall use or handle pyrotechnic materials or devices while under the influence of intoxicating beverages, narcotics, controlled substances or prescription or non-prescription drugs that can impair judgment.
- e. Security. Union, Confederate and Artillery Battalions shall assist in providing security for the battlefield, beginning one hour before each battle where ground charges are to be used. The engineering staff and reenactor security (provided by the respective battalions) shall prevent unauthorized entry into the battlefield where the special effects are to occur.
- f. Placement. Mortars shall be placed in a secure manner to maintain their proper positions and orientations when they are fired. In placing mortars, engineers should take into consideration any battlefield features that may result in foreign objects falling into a mortar (i.e., avoid trees with nuts, pine cones, etc.).
- g. Observation. Pyrotechnic devices shall be fired only when the area where the effect is to occur is in clear view of the pyrotechnic operator.
- h. Separation Distance for Audiences. In compliance with Oregon State Fire Marshall Special Effects Permit requirements, each pyrotechnic device fired during a performance shall be separated from the audience by a minimum of 15 feet, with a “courtesy” distance of approximately 30 feet generally maintained at all NCWC events, except where otherwise approved by the event coordinator, and the State Fire Marshall’s office. NCWC Approved Ground Charges do not contain or result in any hazardous debris, and as a consequence, there is no “fallout radius” as defined by NFPA 1126.
- i. Safeguarding Reenactors.
  - i. The pyrotechnic operator shall provide copies of the site plan and event permit showing the location of all special effects to the Union, Confederate and Artillery Battalion Commanders and the Event Coordinator prior to each event, and shall permit inspection of the site plan and special effects permit at the event by any participating

- member of the NCWC. Site plans shall also be provided to Cavalry Commanders, or any other persons designated by the respective battalion commanders, prior to each event.
- ii. Ground charges shall be marked with white chalk, flour, clean straw, grass sheaves, or in some other manner acceptable to Battalion and Cavalry commanders, so as to alert mounted personnel and their horses to the presence of ground charge mortars.
  - iii. Reenactors should approach no closer than 10 feet from the pyrotechnic effect, unless as part of a planned scenario, approved by the Chief Engineer or his designee, and well as by the company commanders and the battalion commanders involved, and voluntarily undertaken by the reenactor participants. No person shall be required to approach closer than they are individually willing.
  - iv. Mounted Troops. Mounted troops shall exercise their independent judgment as to a safe and prudent distance between their mount and any ground charge. A recommended distance is 30 feet, unless as part of planned scenario.

### 3. **Definitions**

- a. **Ground Charge:** An explosive special effect placed in a mortar on the ground, to simulate a cannon shell exploding upon impact with the ground.
- b. **Mortar:** A device used to direct and control the effect of the pyrotechnic material.
- c. **Aerial Shell:** A cartridge containing pyrotechnic composition, a burst charge, an internal time fuse or module that is propelled into the air from a mortar, and that is intended to burst at or near apogee.
- d. **Hazardous Debris:** Per NFPA 1126 - Any debris produced or expelled by the functioning of a pyrotechnic device that is capable of causing personal injury or unpredicted property damage. Hazardous debris includes but is not limited to hot sparks, heavy casing fragments, and un-ignited black powder. Materials such as confetti, lightweight foam; feathers, cork, paper tubing, tape, fuller's earth, and peat moss are not to be construed as hazardous debris.
- e. **NCWC Approved Ground Charge.** An NCWC Approved Ground Charge consists of a lift charge of approximately 4 oz of black powder, contained in a cardboard canister or carton. The cardboard carton is wrapped in alternating layers of electrical tape and friction tape. The lift charge is typically ignited by an electrical device known as a talon igniter, which is connected to a wireless receiver designed to send an electrical current to the igniter upon receipt of a signal from a wireless remote transmitter. The lift charge is covered with peat moss - to slightly above the approximate rim of the mortar, and may also contain Fuller's earth (a clay substance) to simulate smoke; and pieces of cork to simulate clods of earth and rocks. When constructed as approved, NCWC ground charges do not contain or result in any hazardous debris.

**I. Horse Drawn Vehicle Safety Rules for Everyone.**

1. **“All Stop”** is a command that can be given by anyone who sees an unsafe or potentially unsafe condition with a horse-drawn vehicle.
2. **“Clear Wheels”** is a command that can be given by anyone to warn non-mounted personnel to get away from a horse drawn vehicle, i.e. vehicle rolling backward down hill or drivers losing control of the team.
3. Only NCWC members who have **signed the NCWC liability waiver for equine activities** are allowed to be passengers in horse-drawn civilian vehicles and only 16 years old and up on military support vehicles (wagons, ambulances, etc.) at NCWC events.
4. Only NCWC members who have **signed the NCWC liability waiver for equine activities** and passed the NCWC Written Driving Test are allowed to ride limber chests at events.
5. Driving horses will be allowed to participate at NCWC events only if those horses and their driver(s) have together successfully completed the NCWC Driving Skills test administered by an NCWC approved evaluator for the current year. (See NCWC Rules for Horse-Drawn Vehicles.)
6. The quickest permitted movement of any horse drawn vehicle at public events is a trot, unless the team and drivers are certified at the ADVANCED level and approval of Battalion Commanders and Safety Committee chairperson is given.
7. Horse drawn vehicles must be at a walk anytime they are 30 feet from pedestrians, tented areas, or any camp and any time they are within 30 feet of the public, simulated casualties, or enemy troops.
8. Horse drawn vehicles may NEVER be attacked or captured.
9. Firing, fighting, or taking hits is NEVER allowed off or from an artillery team horse.
10. Teammasters or drivers must be mounted or on board and have taken control of the reins before allowing any passengers to mount any horse drawn vehicle.
11. A trot is the fastest permitted movement of ANY horse-drawn vehicle when passengers are aboard.
12. Mounted or foot soldiers should NOT run towards or up behind any horse drawn vehicle and must not fire within 50 feet of any horse-drawn vehicles.

## Quick Reference Guide

### Battlefield safety ranges:

#### Between infantry and:

Opposing infantry – 30ft

Opposing cavalry – 30ft

Artillery – 75ft cone

#### Between cavalry and:

Artillery – 75ft cone

**Simulated casualties, enemy ground troops, general public –all mounted action must be confined to a walk when within 30 feet (exceptions noted in Rule F.17)**

**Pedestrians, tented areas, or any camp –all mounted action must be confined to a walk when within 30 feet**

#### Between Artillery and:

Any other troops - 75ft cone

Between guns on the same firing line – 20 to 25ft as determined by artillery officers

Between a gun and its ammunition box – 25ft

Between an ammunition box and the public – 25 ft

#### Ground Charges:

Any troops – 10 ft radius

#### Horse-Drawn Vehicles and:

**Between horse-drawn vehicles and any weapons firing – 50ft**

**Cavalry–all mounted action must be confined to a walk when within 50 feet of a HD vehicle (exception for outriders, Rule F.17)**

## Important Signals and Phrases

Phrases (All phrases should be repeated by all members until the completion of the necessary action.):

“STOP ACTION” – called any time a member witnesses and unsafe condition and results in a cease fire and a hold on all movement.

“MEDIC” – called in the case of a real injury or medical problem, first aid is to be quickly supplied with the least amount of fanfare.

“ALL STOP” – called by any member who sees an unsafe, or potentially unsafe, action with a horse drawn vehicle

“CLEAR WHEELS” – called by any member to warn non-mounted members to get away from a horse-drawn vehicle.

### Signals:

#### Artillery -

Cannon is loaded – the gun implements are supported on the cannon wheel hubs.

Cannon has misfired – the gun implements are crossed in front of the cannon.

Cannon has misfired and is unserviceable – the gun implements are crossed in front of the cannon and a red flag is visible.