

Artillery Safety Rules for Hardaway's Battery

1. Muzzle loading artillery pieces are to be manned by at least three men who have been trained in the proper operation of the gun which they are operating.
2. Breech loading artillery pieces are to be manned by at least two men who have been trained in the proper operation of the gun which they are operating.
3. All artillery shall have the proper equipment and be in good repair. Determination of suitability shall be the responsibility of the senior artillery officer. The senior artillery officer must approve artillery before being placed on the field.
4. No object or material may be fired from a gun if it will travel beyond the safety zone.
5. Gunfire is prohibited within 50 feet of any artillery munitions box. If so directed by the officer commanding the Battery, and provided that the munitions box has been covered with a ground cloth, members of the gun crew may use their sidearms and/or carbines provided they fire in a direction away from the munitions box.
6. Minimum distance for aimed pistol fire is 25 ft.
7. Revolvers will use no more than 35 grains of FFF powder.
8. Horsemen must remain at least 60 feet from any gun or munitions box and must honor the safety zone of artillery batteries when the cannons are loaded.
9. The munitions box containing black powder shall be constantly manned when unlocked. When not in use the box is to be stored in a safe and secured area.
10. The munitions box lid is to remain closed when rounds are not being moved, loaded or inspected.
11. The placement of the artillery is the responsibility of the senior artillery officer.

12. The safety zone for artillery will be 75 feet to the front and 50 feet to the sides and rear. Only artillery crews or authorized personnel are allowed within the safety area when the guns are loaded or the munitions box is opened.
13. Artillery munitions boxes will be at least 25 feet to the rear of the cannon and at least 50 feet from the nearest public.
14. No double rounds! Charges must be one round not to exceed 16 oz for a 3" or 24 oz for a 3.76" tube.
15. No gun shall be loaded when the safety zones are not clear. No gun shall be fired when the frontal safety zone is not clear.
16. All artillery rounds shall be charged with black powder only, and shall never exceed the manufacturer's recommendations.
17. Necessary equipment for gun crews is as follows.
 - a. For muzzle loading guns the #1 & 2 men must have ear protection, heavy gloves, and long sleeves shirts if not wearing coat or jacket. The #3 & 4 men will use ear protection and may have gloves and #3 will use either a glove or a thumb stall. #5 must have gloves, ear protection and use a gunner's haversack to move rounds from the munitions box to the gun.
 - b. For breech loading guns the #1 & 2 men must have gloves and ear protection. The #3 man must have gloves, ear protection and use a gunner's haversack to move rounds from the munitions box to the gun.
 - c. All gun crews must have water.
18. The signals for the artillery are as follow.
 - a. If the gun is loaded the #1 & 2 men will place implements (rammer or worm) in a vertical position on top of the hubs. For breech loading guns the #1 man will hold his right hand in the air.
 - b. If the gun is unloaded and safe to approach the rammer is placed in the barrel with the sponge out.
 - c. If the gun has missed fired and is not safe both rammers are cross over the barrel to form an "X". DO NOT APPROACH! For breech loading guns the #2 man will hold up a red flag.

19. When circumstances warrant it, anyone at any time may call “cease fire”. “Cease fire” should be called if there is any doubt whatever as to whether it is safe to fire the piece.

20. Servicing the piece.

- a. #1 and #2 men shall grasp the implements with thumbs pointing away from the gun when inserting them into the bore.
- b. When covering the vent, #3 man will hold his left forearm vertical and keep his head away from over the vent.
- c. After being rammed home, #3 man will prick the charge only after #1 and #2 are outside the wheels, the safety zone is clear and the chief of the piece orders him to do so.
- d. Before giving the command “fire” the chief of the piece will ensure the safety zones are clear and will then call “clear front”. He will then wait 3 seconds while all cannoneers check all safety zones again. Only then may the command “fire” be given.
- e. The piece may not be fired while anyone is between the wheels.
- f. In the event of a misfire the implements will be placed over the tube to form an “X” (with breechloaders a red flag will be raised); all cannoneers will stand down from the piece; after the elapse of a minimum of three minutes a second attempt may be made. If this should fail, repeat the same steps and a third attempt may be made. If this should fail, the tube will be flooded and the gun considered out of action for the remainder of the battle.