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|--|---|--------------------|
| NORTH CAROLINA DEPARTMENT OF CORRECTION | SAFETY, OCCUPATIONAL AND ENVIRONMENTAL HEALTH | |
| | Section: B – Safety Hazards | Policy Number: B-2 |
| | Effective: 02/05/09 | Revised: 03/06/08 |
| Title: Firing Ranges | | |

References:

Division of Prisons, Policy & Procedure Manual, Policy 3000: Firing Ranges (6-12-02)

“Best Management Practices for Lead at Outdoor Shooting Ranges,”
EPA-902-B-01-001, January 2001

“Environmental Aspects of Construction and Management of Outdoor Shooting Ranges,”
National Shooting Sports Foundation, 1997

“NRA Range Source Book, A Guide to Planning and Construction,” Revised January,
2004

Purpose:

The purpose of this policy is to establish guidelines for the approval, operation, and inspection of firing ranges used by North Carolina Department of Correction (DOC) personnel.

Definitions:

For the purpose of this policy, these terms will be defined as follows:

Berm or backstop - refers to the mound of earth located behind the target holder. Its purpose is to absorb and contain fired projectiles.

Essential - refers to standard(s) considered necessary but may not be met by each respective firing range at inspection time. The standard(s) not met may be waived by the Safety, Occupational and Environmental Health consultant for a period not to exceed 45 days to allow time to develop and submit a written plan of corrective action for the essential standard(s) for that respective firing range.

Ground cover - includes the entire surface area of the range, which consists of soft material such as vegetation or soil, and which will not produce ricochets. Soft rubber matting is also allowed. Ranges with concrete surfaces located forward of the firing line must be recessed or shielded from bullet impact to avoid ricochets and must have

approval of the Safety, Occupational and Environmental Health Director prior to range use.

Mandatory - refers to standards which, unless specifically waived by the Safety, Occupational and Environmental Health Director, must be met upon inspection of the firing range.

No exemptions - refers to standards that shall be met and for which no waivers shall be granted. Any range with deficiencies under this category shall not be approved for use until the deficiency has been abated.

Outside agencies - local law enforcement agencies; municipal, county, state and federal government agencies; and criminal justice organizations other than the Division of Prisons (DOP) and Division of Community Corrections (DCC).

Spur - the mound of earth extending in the direction of the firing lines from each end of the berm. Its purpose is to prevent accidental firing beyond the ends of the berm.

Policy:

- I. The department recognizes the need to operate firing ranges in order to comply with mandatory firearms training for staff. The Safety, Occupational and Environmental Health Office shall ensure that firing ranges utilized by departmental staff to conduct mandatory and/or approved optional firearms training are safe, secure, and meet the required regulatory standards. All firing ranges used by departmental staff will be inspected annually and be approved/disapproved for use by the Safety, Occupational and Environmental Health Office.
- II. Approval/Disapproval of Ranges
 - A. A list of approved firing ranges will be maintained by the Safety, Occupational and Environmental Health Office. It will be distributed to the Division of Prisons, Office of Staff Development and Training, and the Division of Community Corrections annually and whenever changes are made. Any request for approval for departmental staff to use a firing range not on the list, whether or not the range is located on departmental property, will be submitted through the chain-of-command to the Safety, Occupational and Environmental Health Director. A representative of the Safety, Occupational and Environmental Health Office will inspect the range. Where appropriate, and as approved by the Safety, Occupational and Environmental Health Director, one or more of these standards may be waived or modified during use by special teams.
 - B. If approved for use the range will be added to the list of approved ranges; and the individual who initiated the request will be notified in writing, via the chain-of-command, of this approval.

- C. If the range is disapproved for departmental use, the individual who initiated the request will be notified in writing, via the chain-of-command, of the reason(s) for disapproval. In the event a disapproved range is subsequently brought up to standards through repair and renovation, the range may be resubmitted for approval in accordance with the above procedures.

III. Inspection of Ranges

- A. Each approved firing range will be inspected annually by the Safety, Occupational and Environmental Health Office to ensure established standards continue to be met. Departmental staff shall not utilize any firing range not on the approved list. Firing ranges will be inspected and approved based on the following standards.
- B. No Exemption standards for basic and in-service firearms training
 - 1. Backstop and spurs are made of dirt and free of debris that may cause ricochet.
 - 2. Ground cover is free of debris that could cause ricochet.
 - 3. Safety Office is notified of any renovations. Must have prior approval for DOC owned ranges.
 - 4. Inmates are not allowed on the range at any time for any reason.
 - 5. Minimum ratio of one certified firearms instructor per six students plus one range master are on site during the training for employees.
 - 6. Range has a written medical emergency plan.
 - 7. Approved hearing protectors and approved eyewear, glasses, or goggles are worn during firing.
 - 8. When in use, the range is equipped with hearing and eye protection for each participant and instructor.
 - 9. Probe backstop for ricochet hazards at two feet intervals behind targets and randomly elsewhere.
 - 10. Personal weapons are not allowed on the firing range.
 - 11. Cell phones are not allowed on the firing line.
 - 12. Water provided for consumption and sanitary purposes is available when range is in use

13. Restroom facilities are available on or in close proximity to range.
- C. Mandatory standards for basic and in-service firearms training
1. There are a minimum of six feet space per lane and a maximum of 24 firing lanes.
 2. Target holder is nylon rope minimum 1/2 inch in diameter; (steel) cable for target holder is acceptable for non-DOC owned ranges.
 3. Firing points (3, 5, 7, 10, 15, 25, 35, 40, and 50-yard lines) are marked appropriately.
 4. For DOC owned ranges, control gate is kept locked except when the range is in use.
 5. Stocked first-aid kit is on site when range is in use.
 6. Approved fire extinguisher is on site when range is in use.
 7. Vehicle is on site when range is in use. Means of communication (telephone, two-way radio, walkie-talkie, cell phone) are on site when range is in use.
 8. Recreational firing is prohibited on all DOC ranges.
 9. Trainees' clothing is consistent with division policy.
 10. Instructor(s) follows range opening and closing procedures.
 11. Instructor(s) inspects and approve condition of weapons to be used during training.
 12. For DOC range, superintendent or his/her designee approves all uses of range and maintains a schedule for range use.
 13. For off-site range, responsible division staff member has written permission to use range from the agency controlling the range. Annual Memorandum of Agreement is on file with the DOP/DCC regional training manager and DCC division training coordinator.
 14. For off-site ranges, the DOP/DCC regional training manager and DCC division training coordinator or designee will ensure that a monthly inspection has been done for each assigned range if used during the monthly period. Records will be maintained in each respective office for two years.

D. Firing range essential standards

1. Minimum height of backstop is 20 feet with ≥ 45 degree impact angle.
2. Spurs are at least 8 feet high, 15 feet in length, and sloped at least 45 degrees. If a course of fire may require the side berm to act as a back stop, it must be 20 feet high.
3. Backstop armoring is ≤ 150 pieces per sq ft.
4. Removable barricades are available at the 25 yard line, and removable or fixed barricades are available at the 50 yard line.
5. Red flag is flown on flag pole when range is in use. During low, limited light firing, red light (battery operated) is displayed. Ideally, it should be located at gate to provide early warning.
6. Perimeter warning signs, approximately 12 inches by 18 inches displaying red letters on white background with legend "Danger - Firing Range" are posted. DOC owned ranges are posted around perimeter at 100 ft intervals.
7. Range is equipped with adequate tables and seating.
8. Backstop and spurs are seeded with grass or some type of erosion prevention. Grass is ≥ 4 " high.
9. Range is provided with an adequate public address system when in use.
10. Range has a storage facility for supplies when in use.
11. A set of range rules are posted. Instructor will review DOC safety rules.

E. Down range impact zone

1. All firing ranges utilized by the department shall be evaluated for a safe down range impact zone. The distance a bullet will travel varies according to several factors: ballistic coefficient, bullet weight, velocity, caliber, bullet shape, angle of muzzle elevation, and to a lesser degree, wind speed, wind direction, and relative humidity. The ballistic coefficient and muzzle velocity are the two most important factors in determining the distance a bullet will travel. The following ballistic tables will be used as a reference to check comparative data for various calibers using specific bullet weights and velocities for evaluating safe down range impact zones.

Table A Calculated Maximum Ranges (Sharp Point Assumed)

| Bullet Caliber/Name | Bullet Wt. (grs) | Assumed MV. (fps) | Calculated Maximum Range (yards) | (miles) |
|---------------------|------------------|-------------------|----------------------------------|---------|
| Pistol | | | | |
| .221 Rem Fireball | 50 | 2650 | 2666 | 1.51 |
| .38 | 110 | 1320 | 1800 | 1.02 |
| .357 Magnum | 158 | 1410 | 2366 | 1.34 |
| .38 Super | 130 | 1280 | 2033 | 1.26 |
| 9 mm Luger | 124 | 1140 | 1900 | 1.08 |
| .40 mm | 180 | 1015 | 1900 | 1.08 |
| .44 Rem Mag | 240 | 470 | 2500 | 1.42 |
| .45 Auto | 230 | 945 | 1833 | 1.02 |
| .45 Auto Rim | 230 | 810 | 1633 | 0.93 |
| .45 Colt | 250 | 860 | 1800 | 1.02 |
| Rifle | | | | |
| .222 Rem | 50 | 3200 | 2500 | 1.42 |
| .223 Rem | 55 | 3300 | 2766 | 1.57 |
| .22/250 Rem | 55 | 3810 | 2933 | 1.67 |
| .220 Swift | 48 | 4110 | 2660 | 1.51 |
| .243 Win | 100 | 3070 | 4000 | 2.27 |
| .243 Win. | 80 | 3500 | 3500 | 1.99 |
| .250 Savage | 100 | 2820 | 3500 | 1.99 |
| .257 Roberts | 100 | 2900 | 3850 | 2.18 |
| .270 Win | 130 | 3140 | 4000 | 2.27 |
| .270 Win | 150 | 2800 | 4333 | 2.46 |
| 7 mm Rem Mag | 175 | 3070 | 4933 | 2.80 |
| .280 Rem | 125 | 3140 | 3700 | 2.10 |
| .300 H & H Mag | 180 | 2920 | 4350 | 2.47 |
| .300 H & H Mag. | 220 | 2620 | 4833 | 2.75 |
| .308 Win | 180 | 2610 | 4166 | 2.37 |
| .308 Win | 200 | 2450 | 4500 | 2.56 |
| .30-06 | 172 | 2600 | 5500 | 3.12 |
| 8 mm Mauser | 200 | 2320 | 4000 | 2.27 |
| .338 Win. Mag | 250 | 2700 | 4660 | 2.64 |
| .375 H & H Mag, | 270 | 2740 | 4500 | 2.56 |
| .458 Win | 500 | 2125 | 4500 | 2.56 |

Note: The above table is based upon Ingalls' Ballistic Tables, as found in Hatcher's Notebook, pages 584-625

Table B Shotgun

| Shot Size (No.) | Diameter (inches) | Maximum Range (yards) |
|--------------------|----------------------|--------------------------|
| 9 | .08 | 176 |
| 8 | .09 | 198 |
| 7 5 | .095 | 209 |
| 6 | .11 | 242 |
| 4 | .13 | 286 |
| 2 | .15 | 330 |
| # 1 buck | .30 | 660 |
| # 0 buck | .32 | 704 |
| # 00 buck | .34 | 748 |

Note: Shotgun distances are based on Journee's Formula for round lead balls. This formula states the maximum range of a smooth round lead ball is roughly 2,200 times its diameter (in inches). This formula does not hold true for steel shot.

IV. External Agencies

Outside agencies desiring use of a range on departmental property shall enter into a Memorandum of Agreement/Understanding and gain approval from the respective superintendent or his/her designee. This document represents an agreement between the North Carolina Department of Correction and outside law enforcement agencies (non-DOC) which allows agencies to utilize this DOC-owned firing range to the mutual benefit of all parties.

V. Safety Rules

- A. The following safety rules will be followed by all persons at all times while the range is in use:
1. Use of a DOC range must be approved by the superintendent or his/her designee.
 2. Safety first, always.
 3. No alcoholic beverages or drugs, or person(s) under the influence of alcoholic beverages or drugs, will be allowed on the range.
 4. There will be no loaded weapons allowed except when on the firing line.
 5. Load only on command of the range officers.

6. Follow all instructions of range officers.
7. Keep all weapons pointed in a safe direction at all times.
8. No one will be allowed down-range unless the range officer signals that the firing line is clear.
9. Shoot only at the target in the designated firing lane. Shooting at other objects (target holders, clips, other targets, etc.) will not be tolerated.
10. There will be no shooting over the backstop.
11. Remove all used targets and backers when finished shooting. Return cardboard and other supplies to designated areas.
12. When training is complete clean up area before leaving the range. This includes spent cartridge casings.
13. No horseplay of any kind will be tolerated.
14. Violation of any of these safety rules will be cause for expulsion from the firing range.

VI. Maintenance, Supplies, and Personal Protective Equipment

- A. Ammunition, targets, backers, and other range supplies shall be requested as needed from the Office of Staff Development and Training.
- B. Routine maintenance and upkeep of ranges on departmental property will be the responsibility of the respective superintendent. Requests for equipment and safety supplies including, but not limited to, nylon rope, rubber matting, grass seed, etc. should be submitted via the chain-of-command through the Division of Prisons.
- C. Trainees shall utilize approved eye (glasses/goggles) and ear protection provided by the instructor. Ear muffs are the only approved protection. Minimum NRR is 21 for range protection. Disposable latex gloves will be worn during handling of brass.

VII. Environmental Concerns (DOP Ranges Only)

- A. The department shall strive to maintain department owned firing ranges in a manner consistent with best management practices that reflect sound environmental stewardship. The control of lead migration and reclamation/recycling of lead shall be accomplished through the following procedures:

1. Mowing grass: Grass should be mowed early in the morning while it is still slightly damp to prevent generating airborne dust. Grass should be left at least four inches high. Grass must be reseeded as needed to prevent bare spots and erosion. Fescue and Bermuda grasses have been shown to absorb lead in environmental studies. Bermuda grass is also less palatable to animals.
2. Disturbing dirt: Berm and spurs should be sown with grass to prevent erosion. Impact areas directly behind the targets should be reseeded with grass frequently.
3. Soil sampling: A composite soil sample will be collected at least annually from each firing range and tested for pH and phosphate levels. This sample can be collected during the annual safety inspection of the range with the test results and any corrective actions needed reported on the inspection form.
 - a.) pH: A pH range must be maintained between 6.5 and 8.5. Spreading bags of 50 pounds (for sandy soils) or 100 pounds (for clay soils) of pelletized lime per 1000 square feet will raise the pH approximately one pH unit.
 - b.) phosphate: The phosphate index must be at least 134 to maintain sufficient nutrients for plant life. This level should be adequate to bind with any free lead on the range. Generally, 15 to 20 pounds of phosphate in rock form per 1000 square feet will effectively control lead.
4. Armoring the berm: A firing range shooting log will be maintained by the facility to assist with this evaluation. During each monthly and annual inspection, the berm will be evaluated for possible armoring by counting the number of visible fragments in one square foot of soil. All fragments, regardless of origin, will be counted. The results will be reported on the inspection form. A count of more than 150 pieces per square foot will require corrective action. Corrective action can be either resurfacing the berm or reclamation depending on the age, use, and condition of the range. During each inspection the berm will be probed with a two foot long rod to ensure that no large rocks or other solid objects are within two feet of the surface. The berm will be probed using a two foot square foot grid pattern behind the target impact zone. The berm can be probed at random intervals outside the target impact zone.

5. Resurfacing the berm: The berm and spurs should be surfaced with at least two feet of clean dirt that is free of rocks and other materials that could cause ricochet. Use dirt with high clay content. Very steep berms may need to be sloped or terraced to prevent erosion.
6. Reclamation procedures and waste disposal: The lead from outdoor firing ranges should be reclaimed on a periodic basis. Current best management practices recommended by EPA suggest that backstop reclamation should be performed when it contains at least 20 pounds of lead per square foot, a maximum of 100,000 rounds per lane have been fired, or every one to five years. The Safety Office will contract with reclamation and recycling companies to furnish these services when needed.

VIII. Recordkeeping

- A. The annual safety inspection will be maintained and available for review purposes by all entities named in the distribution section of the form.
- B. A list of all approved firing ranges will be maintained by the Safety Office and distributed to all affected divisions at least annually.
- C. Department owned firing ranges must be inspected monthly by the superintendent or his/her designee. This inspection is to ensure that the range is maintained in a safe and secure manner. Retain monthly inspections at the facility for two years. Retain the shooting log at the facility for five years.
- D. The Safety Office will maintain the following records for the life of the range plus 10 years after its closure: annual safety inspections, required maintenance or corrective actions performed by staff, and any contracted services.
- E. Department owned firing ranges shall maintain a copy of MOA/U(s) with external agencies which allows utilization of DOP ranges to the mutual benefit of all parties. MOA/U(s) entered into agreement with external agencies on behalf of DOC shall also be maintained. Records will be maintained for the life of the range plus three years after its closure.
- F. Range usage reports shall be returned by non-DOC agencies utilizing DOP owned firing ranges. These reports shall be reviewed by the facility superintendent or his/her designee. A copy of the range usage report will be forwarded to the regional Safety, Occupational and Environmental Health consultant on the last duty day of the month. Originals will be maintained by the facility for the life of the range plus three years after its closure.

North Carolina Department of Correction
 Safety, Occupational and Environmental Health Office
 List of Approved Firing Ranges
 Updated November 24, 2009

This list of approved firing ranges is in accordance with Safety Policy B-2: Firing Ranges. It is based on site inspections conducted by Safety, Occupational and Environmental Health Office Region Safety Consultants. This list will be updated annually and distributed to the Division of Prisons, Division of Community Correction, and Office of Staff Development and Training.

(a) On-site Ranges (Handgun, Rifle, and Shotgun)

| | |
|----------------|-----------------|
| Brown Creek CI | Polkton, NC |
| Caledonia CI | Tillery, NC |
| Dan River PWF | Yanceyville, NC |
| Davidson CC | Lexington, NC |
| Eastern CI | Maury, NC |
| Franklin CC | Bunn, NC |
| Harnett CI | Lillington, NC |
| Johnston CI | Smithfield, NC |
| McCain CH | McCain, NC |
| Morrison CI | Hoffman, NC |
| Odom CI | Jackson, NC |
| Pender CI | Burgaw, NC |
| Piedmont CI | Salisbury, NC |

(b) Off-site Ranges (Handgun, Rifle, and Shotgun)

| | |
|---|--------------------|
| Ahoskie Police Department | Ahoskie, NC |
| Beaufort County Law Enforcement | Washington, NC |
| Beaufort County Community College (Turning Target System Approved) | Washington, NC |
| Bladen County Law Enforcement | Elizabethtown, NC |
| Burke County Sheriff's Department | Morganton, NC |
| Crossnore Training Academy | Crossnore, NC |
| Currituck County Sheriff's Department | Maple, NC |
| Dare County Gun Club/Stumpy Point | Manns Harbor, NC |
| Duplin County Law Enforcement | Kenansville, NC |
| Edenton Police Department | Edenton, NC |
| Elizabeth City Police Department | Elizabeth City, NC |
| Montgomery Community College | Troy, NC |
| McDowell County Sheriff's Department | Marion, NC |
| NC Justice Academy | Salemburg, NC |
| Randolph Community College | Asheboro, NC |
| Robeson Community College | Lumberton, NC |
| Southeastern Community College | Whiteville, NC |
| Wilson Police Department | Wilson, NC |

- Note 1: NC Justice Academy: Range 1 approved for handgun, rifle, and shotgun.
- Note 2: Randolph Community College: Range 2 approved for handgun, rifle, and shotgun. Range 3 approved for rifle only.

(c) Off-site Ranges (Handgun Only)

| | | |
|--|----------------|--------|
| Cary Police Department | Cary, NC | Note 3 |
| Eden Police Department | Eden, NC | |
| Mount Airy Police Department (Turning Target System Approved) | Mount Airy, NC | |
| Perquimans County Sheriff’s Department | Hertford, NC | |

- Note 3: Cary Police Department: Restricted to In-Service or specialty training. No basic trainees allowed.

(d) DOC Specialized Teams (PERT/SORT)

| | |
|------------------------|------------|
| Umstead National Guard | Butner, NC |
|------------------------|------------|

(e) Trial Test Firing Ranges

| | | |
|--------------------------------|---------------|--------|
| Charlotte Police Department | Charlotte, NC | Note 5 |
| Gaston Police Department | Gaston, NC | Note 8 |
| Randolph Community College | Asheboro, NC | Note 6 |
| North Carolina Justice Academy | Salemburg, NC | Note 7 |
| A.B. Tech – Biltmore | Asheville, NC | Note 9 |

- Note 5: Charlotte Police Department: Range 1 approved for handgun only.
- Note 6: Randolph Community College: Range 1
- Note 7: North Carolina Justice Academy: Range 3
- Note 8: Approved for handgun only.
- Note 9: Approved for handgun only.

NORTH CAROLINA DEPARTMENT OF CORRECTION SAFETY, OCCUPATIONAL AND ENVIRONMENTAL HEALTH ANNUAL FIRING RANGE AUDIT

Facility _____ Contact _____
 Safety Consultant _____ Date _____

| DOC Range Shooting Log | Year | Annual Total | Meets Standard | Does Not Meet Standard | Comments |
|------------------------|---|--|----------------|------------------------|----------|
| No Exemption: | No waivers shall be granted. Violation must be abated before range use is approved. | | | | |
| 1 | | Backstop and spurs made of dirt and free of debris that may cause ricochet. | | | |
| 2 | | Ground cover free of debris that could cause ricochet. | | | |
| 3 | | Safety Office notified of any renovations. Must have prior approval for DOC owned ranges. | | | |
| 4 | | Inmates are not allowed on the range at any time for any reason. | | | |
| 5 | | Minimum ratio of one certified firearms instructor per six students plus one range master on site during the training for employees. | | | |
| 6 | | Range has a written medical emergency plan. | | | |
| 7 | | Approved hearing protectors and approved eyewear, glasses or goggles, are worn during firing. | | | |
| 8 | | When in use, the range is equipped with hearing and eye protection for each participant and instructor. | | | |
| 9 | | Probe backstop at 2-ft intervals behind targets and randomly elsewhere for ricochet hazards. | | | |
| 10 | | Personal weapons are not allowed on the firing range. | | | |
| 11 | | Cell phones are not allowed on the firing line. | | | |
| 12 | | When range is in use, water provided for consumption and sanitary purposes available. | | | |
| 13 | | Restroom facilities available on or in close proximity to range. | | | |
| Mandatory: | May be waived by the Safety, Occupational & Environmental Health Director only. | | | | |
| 1 | | There is a minimum of 6 ft. space per lane. Maximum 24 firing lanes. | | | |

| | | Meets Standard | Does Not Meet Standard | Comments |
|--------------------------|--|-----------------------|-------------------------------|-----------------|
| 2 | Target holder is nylon rope minimum 1/2 inch in diameter; (steel) cable for target holder acceptable for non-DOC owned ranges. | | | |
| 3 | Firing points (3, 5, 7, 10, 15, 25, 35, 40, and 50-yard lines) marked appropriately. | | | |
| 4 | For DOC owned ranges, control gate kept locked except when the range is in use. | | | |
| 5 | Stocked first-aid kit on site when range is in use. | | | |
| 6 | Approved fire extinguisher on site when range is in use. | | | |
| 7 | Vehicle on site when range is in use. Means of communication (telephone, two-way radio, walkie-talkie, cell phone) on site when range is in use. | | | |
| 8 | Recreational firing is prohibited on all DOC ranges. | | | |
| 9 | Trainees clothing consistent with division policy. | | | |
| 10 | Instructor follows range opening and closing procedures. | | | |
| 11 | Instructor inspects and approves condition of weapons to be used during training. | | | |
| 12 | For DOC range, superintendent or his/her designee approves all uses of range and maintains a schedule for range use. Monthly inspection records. | | | |
| 13 | For off-site range, responsible division staff member has written permission to use range from the agency controlling the range. Annual Memorandum of Agreement on file with the DOP/DCC regional training manager and DCC division training coordinator. | | | |
| 14 | For off-site ranges, the DOP/DCC regional training manager and DCC division training coordinator or designee will ensure a monthly inspection has been accomplished for each assigned range if used during the monthly period. Records will be maintained in each respective office for two years. | | | |
| | | | | |
| <u>Essential:</u> | May be waived by the safety consultant for a period not to exceed 45 days to allow time to develop and submit a written abatement plan. | | | |
| 1 | Minimum height of backstop is 20 feet with \geq 45 degree impact angle. | | | |

| | | Meets Standard | Does Not Meet Standard | Comments |
|----------------------|---|-----------------------|-------------------------------|-----------------|
| 2 | Spurs at least 8 feet high, and 15 feet in length and sloped at least 45 degrees. If a course of fire may require the side berm to act as a back stop, it must be 20 feet high. | | | |
| 3 | Backstop armoring \leq 150 pieces per sq ft | | | |
| 4 | Removable barricades available at the 25 and removable or fixed barricades at the 50 yard line. | | | |
| 5 | Red flag is flown on flag pole when range is in use. During low, limited light firing, red light (battery operated) is displayed. Ideally should be located at gate to provide early warning. | | | |
| 6 | Perimeter warning signs, approximately 12 inches by 18 inches displaying red letters on white background with legend "Danger - Firing Range" are posted. DOC owned ranges, posted around perimeter at 100 ft intervals. | | | |
| 7 | Range is equipped with adequate tables and seating. | | | |
| 8 | Backstop and spurs seeded with grass or some type of erosion prevention. Grass \geq 4" high. | | | |
| 9 | When in use, range is provided with an adequate public address system. | | | |
| 10 | When in use, range has a storage facility for supplies. | | | |
| 11 | A set of range rules are posted. Instructor will review DOC safety rules. | | | |
| | | | | |
| Safety Rules: | | | | |
| 1 | Use of a DOC range must be approved by the superintendent or his/her designees. | | | |
| 2 | Safety first, always. | | | |
| 3 | No alcoholic beverages or drugs, or persons(s) under the influence of alcoholic beverages or drugs will be allowed on the range. | | | |
| 4 | There will be no loaded weapons allowed except when on the firing line. | | | |
| 5 | Load only on command of range officers. | | | |
| 6 | Follow all instructions of range officers. | | | |
| 7 | Keep all weapons pointed in a safe direction at all times. | | | |

| | | Meets Standard | Does Not Meet Standard | Comments |
|------------------------------------|---|-----------------------|-------------------------------|-----------------|
| 8 | No one will be allowed down-range unless the range officer signals that the firing line is clear. | | | |
| 9 | Shoot only at target in designated firing lane. Shooting at other objects (target holders, clips, other targets, etc.) will not be tolerated. | | | |
| 10 | There will be no shooting over the backstop. | | | |
| 11 | Remove all used targets and backers when finished shooting. Return cardboard and other supplies to designated areas. | | | |
| 12 | When training is complete, clean up area before leaving the range. This includes spent cartridge casings. | | | |
| 13 | No horseplay of any kind will be tolerated. | | | |
| 14 | Violation of any of the above rules will be cause for expulsion from the firing range. | | | |
| | | | | |
| <u>Soil Test Optional</u> | pH 6.5 – 8.5 Phosphate ≥ 134 Results: pH _____ P – I Level _____ | | | |
| | | | | |
| <u>Additional Comments:</u> | | | | |
| | | | | |
| | | | | |
| | | | | |
| | APPROVED / DISAPPROVED (circle one) | | | |
| | | | | |
| <u>Distribution:</u> | DOC Safety Director | | | |
| | DOC Regional Safety Office | | | |
| | DOP Executive Officer | | | |
| | DOP Region Director | | | |
| | DOP Assistant Director for Management Services | | | |
| | OSDT Director | | | |
| | DCC Training Coordinator | | | |
| | DOC Assistant Director for Facility Services | | | |

NORTH CAROLINA DEPARTMENT OF CORRECTION SAFETY, OCCUPATIONAL AND ENVIRONMENTAL HEALTH MONTHLY FIRING RANGE AUDIT

Facility _____ Contact _____

DOC Inspector _____ Date _____

| | | Meets Standard | Does Not Meet Standard | Comments |
|-----------------------------|--|----------------|------------------------|----------|
| <u>No Exemption:</u> | No waivers shall be granted. Violation must be abated before range use is approved. | | | |
| 1 | Backstop and spurs made of dirt and free of debris that may cause ricochet. | | | |
| 2 | Ground cover free of debris that could cause ricochet. | | | |
| 3 | Safety Office notified of any renovations. Must have prior approval for DOC owned ranges. | | | |
| 4 | Inmates are not allowed on the range at any time for any reason. | | | |
| 5 | Minimum ratio of one certified firearms instructor per six students plus one range master on site during the training for employees. | | | |
| 6 | Range has a written medical emergency plan. | | | |
| 7 | Approved hearing protectors and approved eyewear, glasses, or goggles are worn during firing. | | | |
| 8 | When in use, the range is equipped with hearing and eye protection for each participant and instructor. | | | |
| 9 | Probe backstop at 2-ft intervals behind targets and randomly elsewhere for ricochet hazards. | | | |
| 10 | Personal weapons are not allowed on the firing range. | | | |
| 11 | Cell phones are not allowed on the firing line. | | | |
| 12 | When range is in use, water provided for consumption and sanitary purposes available. | | | |
| 13 | Restroom facilities available on or in close proximity to range. | | | |
| <u>Mandatory:</u> | May be waived by the Safety, Occupational & Environmental Health Director only. | | | |
| 1 | There is a minimum of 6 ft. space per lane. Maximum 24 firing lanes. | | | |

| | | Meets Standard | Does Not Meet Standard | Comments |
|-------------------|--|-----------------------|-------------------------------|-----------------|
| 2 | Target holder is nylon rope minimum 1/2 inch in diameter; (steel) cable for target holder acceptable for non-DOC owned ranges. | | | |
| 3 | Firing points (3, 5, 7, 10, 15, 25, 35, 40, and 50-yard lines) marked appropriately. | | | |
| 4 | For DOC owned ranges, control gate kept locked except when the range is in use. | | | |
| 5 | Stocked first-aid kit on site when range is in use. | | | |
| 6 | Approved fire extinguisher on site when range is in use. | | | |
| 7 | Vehicle on site when range is in use. Means of communication (telephone, two-way radio, walkie-talkie, cell phone) on site when range is in use. | | | |
| 8 | Recreational firing is prohibited on all DOC ranges. | | | |
| 9 | Trainees clothing consistent with division policy. | | | |
| 10 | Instructor follows range opening and closing procedures. | | | |
| 11 | Instructor inspects and approves condition of weapons to be used during training. | | | |
| 12 | For DOC range, superintendent or his/her designee approves all uses of range and maintains a schedule for range use. Monthly inspection records. | | | |
| 13 | For off-site range, responsible division staff member has written permission to use range from the agency controlling the range. Annual Memorandum of Agreement on file with the DOP/DCC regional training manager and DCC division training coordinator. | | | |
| 14 | For off-site ranges, the DOP/DCC regional training manager and DCC division training coordinator or designee will ensure a monthly inspection has been accomplished for each assigned range if used during the monthly period. Records will be maintained in each respective office for two years. | | | |
| | | | | |
| Essential: | May be waived by the safety consultant for a period not to exceed 45 days to allow time to develop and submit a written abatement plan. | | | |
| 1 | Minimum height of backstop is 20 feet with \geq 45 degree impact angle. | | | |

| | | Meets Standard | Does Not Meet Standard | Comments |
|-----------------------------|---|-----------------------|-------------------------------|-----------------|
| 2 | Spurs at least 8 feet high, and 15 feet in length and sloped at least 45 degrees. If a course of fire may require the side berm to act as a back stop, it must be 20 feet high. | | | |
| 3 | Backstop armoring \leq 150 pieces per sq ft | | | |
| 4 | Removable barricades available at the 25 and removable or fixed barricades at the 50 yard line. | | | |
| 5 | Red flag is flown on flag pole when range is in use. During low, limited light firing, red light (battery operated) is displayed. Ideally should be located at gate to provide early warning. | | | |
| 6 | Perimeter warning signs, approximately 12 inches by 18 inches displaying red letters on white background with legend "Danger - Firing Range" are posted. DOC owned ranges, posted around perimeter at 100 ft intervals. | | | |
| 7 | Range is equipped with adequate tables and seating. | | | |
| 8 | Backstop and spurs seeded with grass or some type of erosion prevention. Grass \geq 4" high. | | | |
| 9 | When in use, range is provided with an adequate public address system. | | | |
| 10 | When in use, range has a storage facility for supplies. | | | |
| 11 | A set of range rules are posted. Instructor will review DOC safety rules. | | | |
| | | | | |
| <u>Safety Rules:</u> | | | | |
| 1 | Use of a DOC range must be approved by the superintendent or his/her designees. | | | |
| 2 | Safety first, always. | | | |
| 3 | No alcoholic beverages or drugs, or persons(s) under the influence of alcoholic beverages or drugs will be allowed on the range. | | | |
| 4 | There will be no loaded weapons allowed except when on the firing line. | | | |
| 5 | Load only on command of range officers. | | | |
| 6 | Follow all instructions of range officers. | | | |
| 7 | Keep all weapons pointed in a safe direction at all times. | | | |

| | | Meets Standard | Does Not Meet Standard | Comments |
|------------------------------------|---|-----------------------|-------------------------------|-----------------|
| 8 | No one will be allowed down-range unless the range officer signals that the firing line is clear. | | | |
| 9 | Shoot only at target in designated firing lane. Shooting at other objects (target holders, clips, other targets, etc.) will not be tolerated. | | | |
| 10 | There will be no shooting over the backstop. | | | |
| 11 | Remove all used targets and backers when finished shooting. Return cardboard and other supplies to designated areas. | | | |
| 12 | When training is complete, clean up area before leaving the range. This includes spent cartridge casings. | | | |
| 13 | No horse playing of any kind will be tolerated. | | | |
| 14 | Violation of any of the above rules will be cause for expulsion from the firing range. | | | |
| | | | | |
| <u>Additional Comments:</u> | | | | |
| | | | | |
| | | | | |
| | | | | |
| Reviewed & Signed by: | Superintendent: Date: | | | |
| Records Retention: | Maintain at facility for <u>two</u> years. | | | |



North Carolina Department of Correction

Division of Prisons

831 West Morgan Street 4260 MSC Raleigh, NC 27699-4260

Telephone: (919) 838-4000 Fax: (919) 733-8272

Beverly Eaves Perdue, Governor

Boyd Bennett, Director of Prisons

Alvin W. Keller, Secretary

MEMORANDUM OF AGREEMENT AND UNDERSTANDING FOR DOC OWNED FIRING RANGES USED BY AGENCIES OTHER THAN DOC

This document represents an agreement between the North Carolina Department of Correction (hereinafter referred to as DOC) and outside law enforcement agencies (non-DOC) which allows agencies to utilize this DOC-owned firing range to the mutual benefit of all parties. Special conditions and/or restrictions beyond those listed herein should be detailed on an attached memorandum and will become part of this agreement.

DOC Facility Controlling Firing Range: _____

DOC Facility Representative: _____

DOC Facility Contact Person
(If Different from Representative): _____

Outside Agency Name: _____

Outside Agency Representative: _____

Outside Agency Contact Person
(If Different from Representative): _____

The range is located on property belonging to DOC. Outside agencies using this range shall NOT hold DOC liable for any and all claims or causes of action which may arise as a result of such utilization.

All agencies using this range agree to the following:

- I. All agencies will be responsible for ensuring each employee exhibits professional conduct so as to not bring discredit to their department or that of the DOC while utilizing our range or during stops at local community business establishments.
- II. Each use of the range by outside agency staff shall be scheduled and approved in advance by the DOC contact person listed above. In the absence of the contact person, the facility administrator will approve the request for use.
- III. All agencies using the range will check out the range gate key, red flag, and a range usage report from the contact person. The flag will be raised during range operations. The range usage report shall be returned to the facility contact person.
- IV. Agencies will provide their own supplies (targets, cardboard backers-nominal height 48", target clips, ammunition, first aid kits, fire extinguisher, drinking and hand-washing water [if not available], personal protective equipment, and emergency communications equipment, etc.)
- V. Agencies will provide their own certified firearms instructors and range safety officers per applicable BLEET protocol and/or other specific training standards they are subject to.
- VI. Agencies will observe all posted signs and follow all range safety rules posted in front of the range building.
- VII. Agencies will thoroughly inspect the range after each use, removing all weapons, equipment, ammunition, spent cartridges, targets, target backers, shotgun shell wads and other materials and supplies, and all trash generated during the training. Plastic liners and cans for trash will be provided by the responsible prison facility. It is imperative that no trash be left overnight due to animals foraging for food.
- VIII. No open fires are permitted on the range.
- IX. The 25-yard line post will be removed when firing from the 50 yard line. These posts are to be placed back into position upon completion of training.
- X. Shotgun ammunition up to 1 oz. 12 gauge slugs may be used providing no significant damage to the range posts, berm, target backer supporting system (1/2 inch nylon rope) etc., occurs.
- XI. Handguns that do not exceed .357 Magnum firepower will be permitted, including .38 caliber, 9MM, .40 caliber, and .45 caliber.
- XII. No rifle exceeding .223 firepower will be permitted without special permission from the DOC Safety, Occupational and Environmental Health Office.

- XIII. Firing in low and limited-light firing conditions will require that a battery-operated red light be affixed to the range flagpole and used for the duration of range activity.
- XIV. All outside agencies will be provided with a copy of this facility's Range Emergency Plan.
- XV. Agencies will be allowed to use commercially made metal targets designed for the caliber weapon being used.
- XVI. Agencies will report any physical deficiencies or problems with the range to the facility promptly.
- XVII. Personnel are not permitted to climb on backstop or side berms.
- XVIII. Agencies will provide the facility range master or safety officer with a written copy for courses of fire to be conducted.

This Memorandum of Agreement and Understanding should be reviewed whenever necessary but no less than annually.

For NCDOC: _____ For Outside Agency: _____
Title: _____ Title: _____
Date Signed: _____ Date Signed: _____

**NORTH CAROLINA DEPARTMENT OF CORRECTION
SAFETY, OCCUPATIONAL, AND ENVIRONMENTAL HEALTH
DOP FIRING RANGE USAGE REPORT**

Date _____ Range Facility _____

Agency Name Contact Info _____ Lead Instructor _____
Contact Phone Number _____

Name of additional instructors _____

Student count _____

Course of fire (check all that apply)

BLET In-service Instructor School Tactical Other _____

Weapon(s)/caliber fired Rifle _____ Handgun _____ Shotgun _____
 Other (specify) _____

Ricochets Yes No (if yes, summarize ricochet(s), use back or additional sheet for further clarification) _____

Incidents Yes No (if yes, summarize accident using back or additional sheet for further clarification)

Reported injury Yes No (if yes, summarize accident, use back or additional sheet for further clarification and attach a copy of the accident report) 911 Activated Yes No

Nature of Injury Head Hand Leg Foot Chest Abdomen Trunk
 Other _____

Cause of Injury Struck by ricochet Temperature extremes Tripping hazard
 Other _____

Signature/Date

Fax to your Regional Safety Consultant:

- Chip Coon, Piedmont Region, fax (336) 636-5708
- Pat Jacobi, Central Region, fax (919) 716-3967
- Vacant, South Central Region, fax (910) 944-7034
- Robyn Hansen, Western Region, fax (828) 251-6345
- John Hodge, Eastern Region, fax (252) 439-1814