

FIREARM RANGE INSPECTION CHECKLIST

DATE: _____

RANGE NAME: _____

Canadian Firearms Centre - Range Design and Construction Guidelines September 1999

Section 1

- Take a GPS reading at Main Entrance to Range.
- How many ranges in this facility?
- How many members?
- Is there a main facility sign with contact info? 1.6 Pg 21
- Is there a Range Facility Status Sign? Located where? 1.6 Pg 21
- Is there Perimeter Signs and Fencing? Note: fencing not mandatory but preferable Pg 24
- Does each Range have its' own Range Safety Rules posted? Pg 24
- Does each range have its' own Warning System such as Red/Green lights or Flags? 1.8 Pg 25.
 - Must have one or the other for **EACH** separate range. 1.8.1 Pg 25
 - If flags are used can use either a main flag or Firing Line Flags 1.8.1 Pg 25
- Does each Skeet/Trap Field have a Flag warning system?
 - Can have the option of one main flag or individual field flags 1.8.1 Pg 26
- Does the Sporting Clay Range have a Flag system? 1.8.1 Pg 27
 - Must be located at the start of the course
- Is there mandatory use of eye/ear protection? 1.10 Pg 28
- Is there a teaching program in effect?

GENERAL INFORMATION

- Is there a Range/Club building on site?
- Is there a Liquor Licence? Rules posted about alcohol consumption and shooting?

- If licensed what is the License #
- Range Hours of operation? 24 Hour access?
- First Aid Kit available? Does each range have its own kit?
- Does the facility have a “Sign-In” sheet for persons using the range?
 - Is there one main sign in system or does each range have its own?
- Does this facility require a Land Use Agreement? [Sec 1 Pg 13](#)
- Is there a Range Property Layout Diagram available?
 - Copy of a survey, aerial photo, hand drawn diagram

CHECKLIST FOR OUTDOOR RIFLE RANGE

Section 2 **For “Standard Range”**

- Get GPS reading at centre firing line
- Take Magnetic Compass reading for direction of fire.
- Measure length of range
 - Firing Line to Backstop
 - Firing Line to Targets
- Measure width of range.
- Is the range baffled?
- Do Public Agents i.e.: police use it for training?
- Type of firearms used- Rifle? Handgun?
 - What caliber of bullets? Centrefire?, Rimfire?
 - Are shotguns used? Muzzle loaders? Calibers?
- Measure the backstop height- [Chart Pg 31](#)
- Measure the Backstop Crest Length- [Chart Pg 35](#)

- Measure the Backstop Crest thickness. **Must be minimum 1.5 M. Pg 35**
- Measure the Backstop surface slope angle. **Must be min. 30 degrees. Pg 35**
- What is Backstop constructed of? **Any solid material must be covered with min. 1 M of soil. Pg 35**
- Are there bullet catchers built into the backstop?
- Are there side berms?
 - Are they used for separating adjacent ranges of protecting adjacent ranges?
 - Must be min. 2.5m high, 1.5m crest thickness, 30 degree min. face slope and if used to separate ranges must join to at least one backstop. **Pg 45**
 - If the side berms are man made of hard material like concrete then they must be covered in Linatex or similar material. **Pg 46**
- Measure distance between Target Line and base of backstop **Pg 38**
- Are there intermediate backstops?
 - What distance from firing line?
 - Height, Width, Construction?
- Measure firing line distance to targets
 - Are individual firing line distances marked? How are they marked? **Pg 41**
- Are all Firing Points and Targets numbered? **Pg 41**
 - Where are numbers located?
 - Number of shooting lanes?
- Are steel targets used?
 - If so are they shrouded?
 - Is min. 10M firing distance from steel/hard targets followed? Is this posted? **Sec 1.10**
 - Are the steel targets regularly inspected?

What are target holders made of? Should be plastic or wood **Pg 46**

- What is Firing Point spacing? Measure centre to centre. **Recommended distances are on Pg. 42 (1.5m Benchrest; 1.25m rimfire rifle; 1.60m centrefire rifle.**
- Is the firing line on a raised platform?
- What is the depth of the firing line? **See chart Pg 43 (3m benchrest; 3.5m rimfire rifle; 3.5m centrefire rifle.**
- Is firing line parallel to backstop? **No more than 10 degrees out Pg 43.**

What is firing line surface?

Is firing line covered?

Check range floor

- Level, no large obstructions, no exposed rocks, metal or other ricochet material. No unsheltered water, streams, ponds etc.

STANDARD OUTDOOR HANDGUN RANGE SECTION 3

Measure distance from firing line to target

What is backstop height? If max. firing distance is 15m or less the B.S. H is 3m; 15-25m then B.S.H is 4m and 25 plus is 6m high. [Sec 3.2 Pg 49](#)

What is Backstop **crest** length? Must exceed the outside edge of target holders. [See chart #10 Pg 51](#)

What is Backstop crest thickness? Must be min. 1.0m [Pg 51](#)

Measure Firing Point spacing. [See chart 8 Pg 51](#)

Measure Firing Point width. [Chart 9 Pg 51](#)

FOR “NO SAFETY AREA RANGE” SECTION 4

*Direction of fire is into a natural or man made imposing feature that prevents overshoots and ricochets.

What is the imposing feature i.e.: mountain, man made object

- What is the height? What is required height? [See Pg 55-56](#)

FOR “GALLERY RANGES” SECTION 5

* For ranges utilizing people under a covered protective area at the target line to raise/lower targets.

TRAPSHOOTING AND SKEET RANGES SECTION 6

Take GPS and Compass reading for each separate field

Is there proper signage?

SKEET RANGE:

- What is the half circle radius? Should be 19.2m [Sec 6.3.2 Pg 80](#)
- How many shooting stations? Should be 7 with an 8th station in the centre of the field.
[Pg 80 Sec 6.3.2](#)
- Measure distance between High and Low Houses. Should be 38.8 m [Pg 80](#)
- Are there manual or automatic trap throwers?
- If manual thrower then check both houses
 - For pellet proof material construction
 - The houses must have warning sign inside instructing the operator about safety. [See Pg 83](#)
 - Each house must have a Yellow flag mounted to a short pole to be used by operator. [See Pg 83](#)
- Check each shooting station [Pg 83](#)
 - Must be clearly marked
 - Must be level and provide firm footing under adverse weather
 - Should be 90cm square
- Is there a post to verify target flights of clay targets?
 - Should be located 5.5m forward of Station 8 [Pg 84](#)
- Are there adjoining skeet/trap fields? If so are the divided by a Barrier Wall [Pg 84](#)
 - [See Pg 86 Chart 32 for wall specs.](#)

TRAP RANGES:

- Single trap house with manual or automatic thrower?
- If manually operated, the trap house must be pellet proof, have no windows or openings and have a warning sign inside for the operator and a yellow flag that operator can signal shooters with to cease firing [Pg 89](#).
- Check shooting stations. Must be clearly marked, level and provide firm footing. Should be 90cm square. [Pg 89](#).

FIELD FIRING SKEET RANGE:

- Are shooting stations abreast of the operator? [Pg 89](#)
- Are shooting stations level, firm and 90cm square [Pg 89](#)

SPORTING CLAY RANGES SECTION 7

- Take GPS and compass reading at each station
- Are there Safety rules, perimeter signage, range in use signs?
- Does Range Operator have small scale site plan of the range area?
 - This is a requirement **Sec 7.2 Pg 91**
 - Does plan show stations and their safety zones.
 - Is the Plan posted at a common place at the range or in the clubhouse?
- Measure V.A. of Fire for each station. Is it classed as Low, Medium or High?
See Chart 10 Pg 92
- Measure H. A of Fire for each station. Take a bearing to the right side then a bearing to the left side of the station. Degrees between is H.A.F.
- What size of shot shell is being used?
- Do any safety areas overlap another stations area, walking trails areas of human activity?
 - If so, then a flag, beacon or warning system designed as in Sec 1.8 shall be installed **Sec 7.4 Pg 93**
- Is each shooting station numbered and referenced on a site plan? **Sec 7.5.1 Pg 94**
- Are there shooting stalls?
 - If so should be 2m-2.5m high and 1m wide. Full lattice on sides and ½ lattice on front. **Pg 95 chart 35**
 - Be clearly numbered and referenced to a site plan
- Check operator stations. **Pg 98**
 - Are they protected?
 - Is there a yellow flag at each operator station?

BAFFLED HANDGUN AND RIFLE RANGES SECTION 8

- Are firing points fixed?
- Are baffles ricochet proof- clad in timber **Sec 8.2 Pg 103**
- What is Range Type- I, II, Other? **Pg 103 Chart 11**

- Is Backstop crest visible beneath any baffle (Shouldn't be) Pg 107
- Does backstop crest length exceed left and right flank, side berms?
- Does backstop have a cover? See Pg 107 also Chart 41 on Pg 104
- Does the backstop have built in bullet catchers? (Optional) Pg 108
- Do all baffles prevent bullet penetration? How are they constructed?
- First baffle shall be no more than 5m forward of a firing line and no "blue" sky visible beneath the first baffle Pg 109
- Measure height, width, and check type of construction material
 - Face of baffle toward shooter must be clad with min 5cm planking or similar material Pg 110
 - Baffle shall run the width of the range Pg 110
- Are there ground baffles? Measure there height, width, thickness
- Are signs present to state that "No targets are to be placed on Baffles?"

INDOOR RANGES SECTION 9

- What type of firearms are used and calibers of ammunition?
- What type of ventilation system?
- Is there a Lead Contamination Plan? Pg 121- (Recommendation)
- Is range cleaned regularly? What method? Pg 121
- What are Vertical and Horizontal Angle measurements for walls and ceiling at firing line?
See Table 13, Pg 122 (Vertical: Rim fire rifle: 10d, Rim-fire Hand-gun 15d, Centre fire Rifle/handgun 15d) (Horizontal: 6d, 10d, and 15d)
- Any doorways/access points forward of the firing line that can be opened from the exterior? Pg 122
- Are Range waiting rooms/observation room's doors sealed to prevent lead infiltration? Pg 125
- Check floor. Is it clean, free of any projections, angular surface that could cause bullet backslash? What is it constructed of? Pg 125

- Measure ceiling height at firing line and at target holders. Must be min. 60 cm at firing line and min. 25 cm at targets Pg 125 & 126
- Is there emergency lighting in the active range area-Mandatory. Pg 127
- Is there a Range Rules Sign in the waiting area or near the access door? Also should be a sign in the active range area stating- Wear ear protection, No smoking, No food or drinks in active range area. Pg 127
- What are target holders constructed of? Should be wood or plastic. If metal then metal parts have to be covered with wood **or** angled to prevent ricochets. Does the range have a target carrier system? Not required Pg 127
- Take Firing Line Measurements. Distance from Firing Line to Targets and Backstop.
- Are there multiple firing lines? Are the distances painted/marked on the range floor? or walls? Pg 128
- How many Firing Points
 - Spacing between Firing Points. Recommended 1.0m centre to centre Pg 128
 - Are Points and targets numbered? Sec 2.3 Pg 41
- Is there a Firing Line Range Officer area? What are the measurements? Pg 128 and Sec 2.3 Pg 43 or Sec3 Pg 51
- Does the firing line exceed outside edge of target lane by 0.5 m. Pg 128
- What is distance between adjacent firing points? Recommended 1.0m Pg 128
- Are the firing points separated by partition? **Not required but recommended.** Pg 128
- Construction of walls, ceiling floor- type of material? See min. thickness requirements on Pg 129
- Are there overhead or side wall baffles?
 - Are they clad in timber of firing line side? What thickness? (5cm Pg 129)
 - Are baffles within 10m of firing line angled? (Should be 25-30d Pg 129)
 - If steel baffles then what thickness? (Min 5cm Pg 130)
- Is P.Z. inspected regularly by Range Operator? (Required to be). Pg 130
- Inspect the bullet trap. Pg 131
 - Are steel edges cleanly abutted with no gaps?
 - Are seams backed with 10cm steel plate?

- Are there any exposed screws, bolt heads? They must be flush.
- Are steel edges beveled and have thickness of **not more than 1.5mm.**
- **If a Single Steel Plate design** then: Pg 131-133
 - must be angled at 45d or less in direction of fire
 - must meet min. thickness (Table 16, Pg 133)
 - sand trap must be min. 10cm deep.
 - can only use C.F and R.F handguns and R.F. rifles
- **If a Vertical Steel Plate design** then: Pg 133-135
 - can only use R.F. rifle or handgun with lead bullets
 - must have min. 4-6 mm thickness Pg 133
 - must be enclosed in a wood or sheet metal container
 - must have backsplash curtain min. 30cm in front of it.
- **If a Venetian Blind design** then: Pg 135
 - plates shall be angled not more than 45d
 - lip of each plate must be higher than the base of the one below it.
 - should have backsplash curtain.

Is the Bullet trap inspected regularly? Shall be Range Operator Pg 135

Is there the mandatory warning light system? Pg 137

- can be a "Warning Range in Use" sign
- can be Red/Green Light system
- can be Red/Green beacons.
- must be visible to shooters on the range

Check ventilation system. Pg 138

- air supply should be behind firing line
- should be air ducts along firing line less than 2m above floor
- exhaust ducts should be 5-6 m ahead of firing line and at the bullet trap.

First Aid kit, emergency phone and numbers.