

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 they 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 backslash 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 backslash 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.