

## EXTRACT FROM NRA 'BISLEY BIBLE' RULES OF SHOOTING – APPENDICES

### APPENDIX VI – DANGEROUS AMMUNITION

#### Prohibitions.

1. Unless the Chief Executive has given prior permission (*has been given*) in writing, use of the following on Bisley ranges is prohibited:

- i. Tracer; incendiary; armour piercing; armour piercing incendiary (API); depleted uranium; ammunition containing any igniferous or explosive substance.
- ii. Projectiles of any construction other than lead core with gilding metal or soft iron jacket, including specifically mono-metallic bullets (ie made from a single metal) except solid lead bullets.

2. High Muzzle Energy (HME) ammunition and firearms which develop a muzzle energy exceeding 4500 Joules (3319 ft lb) are subject to special procedures (see Section 15 and Appendix VII). No ammunition which exceeds either of the following maximum allowable figures: muzzle velocity – 3281 ft/sec (1000 m/s): muzzle energy – 5160 ft lb (7000 Joules) may be used on any (*Zelah*) range. Any cases of doubt must first be cleared through the Chief Executive (*Training Officer or Range Manager*).

3. Downloading ammunition will not be accepted as a means to bring rounds that would otherwise exceed potential ME/MV values within limits.

#### Handloaded Ammunition

4. The chief danger with handloaded ammunition is that ignorant, inexperienced and irresponsible handloaders can assemble and fire ammunition that may inconvenience or endanger others as well as themselves.

5. The most usual manifestation of unsafe, as opposed to unsatisfactory, handloads is that they produce excessive pressures for the firearm in which they are used. The most common causes of high pressure are set out in Para 6 below; a list of the visible signs of high pressure appears in Para 7 below. In every case the fault is due to lack of care and common sense on the part of the handloader.

#### All Ammunition

6.. The most usual causes of excessive pressure are:

- a. Use of too fast-burning a powder for the application;
- b. An excessive charge of powder, often in combination with 6a above. This is by far the most common cause of dangerous pressures in handloads;
- c. Over-long cases which have not been trimmed to the recommended maximum length;
- d. Use of old or damaged cases;

e. Erroneous loading practices;  
f. Differences in the dimensions of the chamber and throat area of a firearm may create excessively high pressures if not compatible with the cartridge in use. Such things as a bullet set further forward to engage the lead or a bullet of larger diameter than that of the chamber throat may cause this. One indication, but by no means the only one, of this particular problem is the pulling of the bullet from the cartridge case when attempting to extract an unfired cartridge. Some, but not all, of the combinations that are likely to cause this sort of problem are:

- i. incorrectly assembled ammunition for the chamber dimensions in use, or
- ii. incorrectly dimensioned chamber for the ammunition in use, or
- iii. .308" WIN commercial ammunition used in a rifle normally used only with 7.62 x 51mm NATO cartridges, or
- iv. 5.56 x 45mm NATO cartridges used in a rifle chambered for .223" Remington cartridges.

7. Signs that pressures of any ammunition in any firearm exceed the sensible limit for the combination of components in use include:

- a. Hard extraction; difficulty in opening the bolt. This may be due to soft or oversize cases, or to rifle factors such as a rough chamber. If it does not occur with factory ammunition, the handloads are at fault.
- b. The presence, after firing, of bright marks on the case head matching extractor and ejector slots in the bolt face. These are caused by extruded material being sheared off, and often cause the difficult bolt operation noted in 7a above.
- c. Heavily flattened, extruded, cratered or pierced primers. Although some rifles show these signs with factory ammunition, the indication is that pressures are grossly excessive for the combination of components used in that firearm.
- d. Gas leaks around the primer. Pressures are at danger level and firing must cease immediately.
- e. Complete case head failure, accompanied by loss of primer, severe gas escape and possibly firearm damage or firer injury.

8. Most of the signs set out in Para 7 apply to rifles. Service competitors using service pistols should use only the service ammunition issued, but should be aware of the signs of excessive pressure. Self loading pistols often react by excessively violent operation and ejection, and by producing cases that are bulged near the base.

9. The responsible user of any ammunition should stop firing if he suspects that the ammunition he is using is producing dangerous pressures in his firearm. It is in competitors' (firer's) own interests to draw the attention of the Range Officer to the continued use of apparently dangerous ammunition; the cumulative effect of cartridges producing excessive pressures can lead to firearm failure even in cases where one, or a few, have been discharged without apparent damage or danger.

## Dangerous Ammunition – Instructions for Range Officers

10. If a firer is seen to be using one of the natures of ammunition mentioned in Paras 1 and 2 above, he is to be prevented from further firing, and the matter should at once be brought to the notice of the CRO or Range (*Manager*) Office if no CRO is appointed.

11. Range Officers on Running Deer must ensure that all firearms in use are of an approved calibre, muzzle velocity and muzzle energy.

12. At all times, the Range Officer should, if he sees a competitor (*firer*) having difficulty because his ammunition is producing signs of excessive pressure (as set out in Para 7 above), or for any other reason, take the following action:

- a. Stop the competitor (*firer*) firing any further shots;
- b. Ensure, by making him wait until others on the target have completed their shoots, that the competitor (*firer*) does not inconvenience others;
- c. Examine the competitor's (*firer's*) cases for signs of high pressure: if the cases show the signs of excessive pressure detailed in 7c, 7d or 7e above, the Range Officer must not allow the competitor (*firer*) to fire again unless he changes his ammunition;
- d. Report the matter to the CRO or Range Office if no CRO is appointed

**\*NB Areas of text 'greyed out' are NSC Bisley specific text. *Italicised and highlighted text* is by DSA Training Officer.**