



TECHNICAL ADVISORY SECTION (ROYAL ENGINEERS) (TAS(RE))

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RANGE ADVICE NOTE 1/11

See Distribution

Reference:

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SHOOT HOUSE WALL SPECIFICATION.

- 1. Background.** Reference A calls for proprietary bullet catcher systems to be used where centre fire high velocity weapons are used. Reference A also provides some detail on the design criteria for shoot houses in Chapter 6 with examples of structure types. The development and use of these facilities is expanding rapidly and this Advice Note is intended to set out the UK MOD position on the acceptance of proprietary systems offered by contractors and suppliers.
- 2. Safety Assurance.** There are several examples of these ranges that have now been in use for several years and from these there is clear evidence of performance that can provide safety assurance over such a period. Materials and systems that have completed short term trials provide evidence of performance in the short term only and therefore a guarantee of longer term performance is essential.
- 3. Guarantee.** The supplier given the stated use (weapon types used and expected volume of rounds fired) should provide a reasonable guarantee of performance with any conditions or limitations that would affect such guarantee.
- 4. Performance Specification.** Any proprietary system shall capture and contain all rounds and be constructed in such a way that it is inherently safe, ie regular intervention by the user is not necessary to maintain safety except for planned maintenance. Predicted maintenance cycles based on stated use are to be specified by the supplier.
- 5. Steel Specification.** Steel plates used in proprietary high velocity bullet catcher systems are to be specified to ensure there is no deformation or penetration of the steel plate surface under specified use conditions. Where bullet trap systems using only vertical steel plate and a rubber panel or sheet to prevent backsplash are provided, the minimum steel specification is armoured steel, through hardened (not surface hardened) AR500 with a minimum thickness of 8 mm.

6. **Anti-backsplash material.** Rubber panels or a combination of rubber panel and blocks are generally used to contain bullets striking the steel plate behind. The specification of the anti-backsplash medium is specified by the supplier along with expected performance and maintenance requirements based on trials and or experience to maintain safety. Maintenance or replacement of anti-backsplash systems should be easily completed by the user with no requirement to bring in specialist contractors. Evidence of performance and trails results are to be passed to TAS (RE) where such material is planned for use in UK MOD ranges.

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