

Subject 752

May 19, 2017

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Bullet-Resisting Equipment, UL 752, are being proposed:

1. Level 3 bullet specification

STP BALLOTS AND ALL COMMENTS DUE: June 19, 2017

UL's goal is to have no interest category comprise more than one-third of the STP membership balance. To improve the current balance for STP 752, UL is looking for participants in all interest categories except for Producers. Definitions for these interest categories are available on the Standards STP Internet site:

<http://ulstandards.ul.com/develop-standards/participation/interest-categories/>

If you are interested in applying for STP 752 membership or are aware of potential candidates for this STP, please contact the STP Project Manager, Mark.Ramlochan@ul.com.

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~.

1. Level 3 bullet specification

RATIONALE

Jon Woods, Waco Composites Ltd.

It has come to our attention at Waco Composites that the 44 caliber 240 grain gas checked semi wadcutter bullet specified for Level 3 is no longer commercially produced and available. To currently meet the requirements of UL 752 Level 3, Waco Composites must special order these bullets from a manufacturer. Some independent test labs are substituting lesser quality rounds for UL 752 Level 3 testing, such as Speer's 4661 cold formed non-gas checked semi wadcutter bullet. Further, due to the variety of manufacturing processes such as forming or casting and various lead alloys, some semi wadcutter bullets have a much higher hardness and are therefore harder to defeat. Currently UL 752 does not address the bullet hardness in Table 3.1 or elsewhere in the standard. We have also found comparable ballistic results from in house testing between the 240 grain gas-checked semi wadcutter and 240 grain jacketed soft point bullets. The bullet jacket should help prevent leading of the barrel and is a better substitute for the gas check than a non-gas checked semi wadcutter. The objective of this proposal is to ensure proper testing is being performed by specifying a commercially available product and eliminating variations in testing by specifying the bullet hardness. It is also important to note that this proposal does not change the bullet weight or velocity requirements.

PROPOSAL

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Table 3.1
Ratings of bullet-resisting materials

Rating	Ammunition	Grain	(g)	Minimum velocity,		Number of shots	Paragraph
				fps	(m/s)		
Level 1	9 mm full metal copper jacket with lead core	124	8.0	1,175	358	3	4.3
Level 2	.357 Magnum jacketed lead soft point	158	10.2	1,250	381	3	4.4
Level 3	.44 Magnum lead semi-wadcutter gas checked with a minimum hardness of 10 HBN, or jacketed soft point	240	15.6	1,350	411	3	4.5
Level 4	.30 caliber rifle lead core soft point	180	11.7	2,540	774	1	4.6
Level 5	7.62 mm Rifle lead core full metal copper jacket, military ball	150	9.7	2,750	838	1	4.7
Level 6	9 mm full metal copper jacket with lead core	124	8.0	1,400	427	5	4.8
Level 7	5.56 mm Rifle full metal copper jacket with lead core	55	3.56	3,080	939	5	4.9
Level 8	7.62 mm Rifle lead core full metal copper jacket, military ball	150	9.7	2,750	838	5	4.10
Level 9	Armor piercing .30 caliber Rifle steel core lead point filler full metal jacket	166	10.8	2715	828	1	4.11
Level 10	.50 caliber rifle lead core full metal copper jacket military ball	709.5	45.9	2810	856	1	4.12
Supplementary shotgun	12-Gauge rifled lead slug and	437	28.3	1,585	483	3	4.11
	12-Gauge 00 lead buckshot (12 pellets)	650	42	1,200	366		
NOTE – Maximum velocity is 110 percent of the minimum velocity.							

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