NL comments on document AEBS/LDWS-11-02

-1
In paragraph 1 the restriction: "*[equipped with a pneumatic braking system and pneumatic rear suspension]*" is added. I don't understand the rationale given in document AEBS/LDWS-11-04. Heavy N2 vehicles have pneumatic-hydraulic brakes if they are not equipped with full-air brakes. I don't know of heavy N2 vehicles with a full-hydraulic brake. The control of pneumatic-hydraulic brakes is pneumatic; compressed air. The hydraulic part is just following the pneumatic part. So, I don't see many problems for that category.
Full hydraulic brakes are used in the lighter N2 vehicles. There may be a problem with the extra costs for generating high hydraulic pressures for the emergency braking in a short time. Therefore the rationale should be based on that aspect of costs.
Apart from that, if steel suspension was excluded a large part of the vehicles would fall outside the scope. And maybe manufacturers would be encouraged to produce steel suspensions in stead of air suspension. The technical problems have to be faced, sooner or later. I think here also it is a question of costs. And a rationale to exclude steel suspension for the time being should address that aspect.

-2
Paragraph 5.2.2. last sentence states: "*This shall be tested in accordance with paragraphs 6.6.3., and 6.7.3*".
But paragraph 6.6.3 and 6.7.3 are only the performance requirements. Isn't it better to refer to the paragraphs 6.6 (Warning and activation test with a stationary target) and 6.7 (Warning and activation test with a moving target)?
In paragraph 5.5.1. the same kind of thing; last sentence of paragraph 5.5.1. states: "*This shall be tested in accordance with the provisions of paragraphs 6.6.2. and 6.7.2*.".
The paragraphs 6.6.2. and 6.7.2. are performance requirements, they don't describe tests. I think it is more clear to refer to the paragraphs 6.6 and 6.7.

-3
Remark; Paragraph 6.3. to 6.10. need to be renumbered since we deleted paragraph 6.2.

-5
Paragraph 5.2.3. states: *"…at all vehicle load conditions between laden and unladen… In the case of a semi-trailer tractor, the unladen condition is with an unladen semi-trailer attached*."
I don't know what the rationale (I missed it) is for the coupling of a trailer but I think it is after all not necessary to mention the coupling of the trailer since paragraph 6.4.1. states: "*The vehicle shall be tested in a condition of load to be agreed between the manufacturer and the Technical Service*." So the load depends anyhow on the consultation between the manufacturer and the technical service.

-6
Paragraph 6.5.2. is not clear;
"6.5.2 Stationary target
The stationary target shall be positioned such that <u>its component nearest to the subject vehicle</u> is positioned at the expected collision point on the axis of the test course."
The "component nearest to the subject vehicle" is not necessarily in the middle of the vehicle. It could be on the left or right part as well. E.g. a jeep has mounted a spare wheel at the left rear side. May be a jeep is not a typical AA-saloon but you cannot expect that all AA-saloon cars have their "component nearest to the subject vehicle" in the middle.
Text analogues to e.g. paragraph 6.5.3. would be better: "The stationary target shall be placed on the axis centre of the test course…"

-7
The text of paragraph 6.6.3. ("The speed reduction … shall be: …") is not in line with the text of paragraph 6.7.3. ("The emergency braking phase shall result in …"). The text in paragraph 6.6.3. should be analogous to paragraph 6.7.3.

Paragraph 6.6.3. should read: "**The emergency braking phase shall result in a** ~~the~~ speed reduction of the subject vehicle at the time of the impact with the stationary target ~~shall be~~ **of**: …"

-8

We think a false reaction test is important. For financial and practical reasons we agree to restrict the tests to the minimum. That leads to one or two stringent tests.
I understood that a test with a stationary target is more severe than with a moving target. Therefore we suggested to have a test with stationary objects placed at the borderline closest to the lane of travel (3,5 m wide) of the subject vehicle and an object above that lane. That creates a kind of gate leaving the minimum distance between the subject vehicle and the stationary objects.
May be a test in a corner (a target vehicle in the outer lane of the corner passed by the subject vehicle in the inner lane), as proposed by the UK, is also necessary.