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Comment#	Page	Paragraph/ Figure/Table/ Note	Type of com- ment	Justification for change	Proposed change
1		Definitions	te	Insert definition of venting based on SAE J 2929	The release of excessive internal pressure from a RESS cell, module or pack in a manner intended by design to preclude rupture or explosion.
2		3.1.2.5	te	The acceptance criteria shall be kept because they are good guidance for the document user.	During the test, including 1 h after the test, the [RESS battery system] shall exhibit no evidence of a) venting b) electrolyte leakage c) battery enclosure rupture d) fire e) explosion.
3		3.2.2.2	te	The acceptance criteria shall be kept because they are good guidance for the document user	During the test, including 1 h after the test, the [RESS battery system] shall exhibit no evidence of a) venting b) electrolyte leakage c) battery enclosure rupture d) fire e) explosion.
4		3.3	te	Delete the chapter 3.3 Dewing and support the Japanese view	
5		3.4	te	Delete the Korean remark in 3.4 and support the Japanese view. Because repeatability and reproducibility of the test results of the proposed drop test are questionable.	
6		3.4.1.2.1.2 Diagram 1	te	Define a corridor (lower and upperlimit) for the acceleration in diagram 1	
7		3.4.1.2.2	te	Acceptance criteria shall be aligned to R94/95	During the test, including 1 h after the test, the [RESS battery system] shall exhibit no evidence of a) electrolyte leakage has to be less than 7% of the total electrolyte amount or less than 5 l whatever is smaller b) fire c) explosion

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8		3.4.1.2.2	te	Define a maximum duration of the force. As crash conditions should be simulated with the test, the duration of the force should be limited to typical crash duration of [100] ms.	Crush a [RESS or pack(s)] between a resistance and a crush plate described in figure 7 with a force of [100 kN] should be limited to a duration of [100] ms.
9		3.4.1.2.2 Figure 7	te	The test will become more severe as the crush plate gets smaller by the higher force per area at the RESS. The use of smaller crush plates in a smaller press is useful for smaller RESS types (e.g. HEV batteries). Thus, smaller crush plates should be allowed in the test.	Thus write: Dimension of the crush plate: 600 mm x 600 mm or smaller
10		3.4.2.2.2	te	Acceptance criteria shall be aligned to R94/95	During the test, including 1 h after the test, the [RESS battery system] shall exhibit no evidence of <ul style="list-style-type: none"> a) electrolyte leakage has to be less than 7% of the total electrolyte amount or less than 5 l whatever is smaller b) fire c) explosion
11		3.5.2.1.2	te	As starting temperature of the RESS is not that critical in the test it should be allowed to widen the temperature window for the RESS start temperature. This would reflect the test conditions in not acclimatised halls.	The [RESS] shall be conditioned of period of not less than 8 h at a temperature of 20 + 10 °C before the test starts.
12		3.5.2.1.3	te	A test of the RESS without additional vehicle parts should be allowed, if in interest of battery manufacturer.	In the case of [RESS] designed for a specific vehicle use, vehicle parts which affect the course of the fire in any way shall <u>could</u> be taken into consideration.
13		3.5.2.1.7.1	te	Delete paragraph 3.5.2.1.7.1 to simplify the test and avoid moving burning fuel.	Delete paragraph 3.5.2.1.7.1
14		3.5.2.1.7.2	te	To compensate for deletion of paragraph 3.5.2.1.7.1 the burning time shall be fixed to 90 seconds.	For 90 seconds the [RESS] shall be exposed to the flame from the freely burning fuel.
15		3.5.2.1.7.3	te	As Phase C is not influenced by changing initial Phase A and B, we shall stick to the initial 60 seconds burning time.	The [RESS] shall be exposed to this reduced flame for a further 60 seconds. Instead of conducting Phase C of the test, Phase

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					B may be continued for additional 60 seconds at the manufacturer's discretion in those cases there is no reason to believe that this might pose a lower risk than the normal phase C.
16	3.6.2.2, 3.7.2.2, 3.8.2.2, 3.9.2.2		te	It is technically not necessary that venting appears in the tests "external short circuit", "overcharge protection" "over-discharge protection" and "over-temperature protection". If this statement is seen to strong by the majority of the delegates we could skip venting from the acceptance criteria.	During the test, including 1 h after the test, the [RESS battery system] shall exhibit no evidence of a) venting b) electrolyte leakage c) battery enclosure rupture d) fire e) explosion.
17	3.9.2		te	The operation of the RESS and the verification of the operation is not described in the test. It would be helpful to see the interruption of low current at the overtemperature.	Write in 3.9.2.1 The RESS shall be continuously charged and discharged between the maximum and minimum voltage at a C/5 current.
18	3.9.2.1		te	In the conditions paragraph the RESS is forced into a temperature range of 20 °C above maximum working temperature. This is contra dictionary to the 3.9.3. verification paragraph which requires "The charge and discharge shall be functional." Thus, the overtemperature range shall be limited to 10 K above maximum working temperature.	The temperature shall be increased at a rate of de 5 °C/min ± 2 °C/min until it exceeds the maximum working temperature of the [RESS] by 10K.
19	3.9.2.1		ed	Insert temperature	The manufacturer shall provide the technical service with the relevant technical information dossier of the <u>temperature</u> measurement device.
20	3.11		te	Follow the Japanese proposal and delete paragraph 3.11	