To: Snell M2015 Certified Manufacturers and Other Interested Parties

Subject: 2020 Standard for Protective Headgear for Use with Motorcycles and Other Motorized Vehicles (M2020 Final Version)

This is the finalized M2020 standard. It remains the same as the 4th draft of M2020 sent out last month. M2020 allows for two separate impact test options M2020D and M2020R. M2020D, the "D" is for "DOT", continues the impact tests and criteria currently in M2015. M2020R, the "R" is for "Regulation 22", consists of the impact tests and criteria imposed previously in the third draft of M2020.

Industry leaders have urged that M2020 ought to enable continued production of configurations developed for M2015 compliance. They maintain and Snell agrees that these demands reflect the most impact energy management possible in a motorcycle helmet consistent with motorcyclists' needs and with the requirements of mandatory standards in the United States and Japan. M2020D is formulated to serve this purpose. However, since M2015 demands complicated compliance with mandatory standards in place in Europe and other parts of the world, this M2020 draft allows a second impact test option, M2020R, with test severities are chosen to identify headgear with the greatest impact energy management consistent with motorcyclists' needs and with the requirements of ECE Regulation 22 (ECE 22-05). It is hoped that M2020R will also enable compliance with FRHPhe-01 which will apply to helmets used in FIM sponsored competitive events.

Helmet makers submitting helmets for certification testing may choose which of these two options comports best with their samples. If the helmets meet requirements and are brought into the Snell program, all subsequent standards enforcement testing will be according to the selected option.

Although M2020R has been drafted to comport with European requirements, it is expected that helmets satisfying this option will also meet the impact test requirements current in government standards imposed in the United States and Japan. The impact test requirements for the two options are intended to yield configurations of comparable weight and silhouette so that rider preferences for light, sleek headgear should not favor either M2020R or M2020D in market appeal.

Please note: The impact test options are intended to enable compliance with certain other mandatory standards but may not necessarily assure that compliance. Helmet makers, sellers and users must take care to assure that their helmets comply with applicable regulations governing traffic and competition.

The differences between these options are as follows:

- M2020D – Continuation of M2015 Requirements
    - Flat Anvil – two impacts, the first at 7.75 m/sec and the second according to the test head form.
    - Hemispherical Anvil – same as the flat.
    - Edge Anvil – a single impact at 7.75 m/sec.
    - Test Criteria – the recorded shock must not exceed the peak G level set for the test head form.
- M2020R - Consistent with European Demands (ECE 22-05) and with FIM FRHPhe-01
    - Flat Anvil – a single impact at 8.2 m/sec
    - Hemispherical Anvil – two impacts, the first at 7.70 m/sec and the second according to the test head form.

  - Edge Anvil – a single impact at 7.75 m/sec.
  - Test Criteria – the recorded shock must not exceed the peak G level set for that head form and the HIC calculated for the shock pulse must not exceed 2880.
    - Although Snell's directors have concluded that HIC is of little use in evaluating helmet protective capability, they agree that M2020R must still assure some reasonable compliance with the HIC criteria imposed in ECE 22-05 and in FRHPhe-01 and that applying a HIC criterion in M2020R may be the best way to obtain this assurance.

It is expected that helmets which meet either M2020 option will satisfy the following objectives:

- provide a premium of protective capability
- capable of meeting mandatory requirements
  - M2020D – intended to enable DOT and/or JIS as required in North America and Japan
  - M2020R – intended to also enable ECE 22-05 and FIM FRHPhe-1 as required in Europe and elsewhere
- comparable in weight and bulk to helmet models currently certified to M2015
- comparable in costs to helmet models currently meeting M2015.

Transition

Since helmets certified to M2020D will satisfy the requirements of M2015, units may be distributed for sale with M2015 labels and claims in advance of October 1, 2019 when M2020 will take effect. In the interests of fairness, helmets certified to M2020R may also be distributed with M2015 labels in advance of October 1, 2019; the Snell lab will be able to identify helmets brought in for enforcement testing and to test them appropriately for compliance according to the correct option.

Current plans call for M2020D and M2020R to take effect October 1, 2019 and for production of M2015 labeled headgear to cease before April 1, 2020. On April 1, 2019, the office will begin shipping M2020D and M2020R certification labels to be used in helmets appropriately certified to the respective M2020 options.

We are ready to accept submissions for M2020D and M2020R certification. Helmet makers have only to request M2020D certification for helmet configurations certified to M2015 since January 1, 2018; we will not require additional certification testing for these recently certified models.

Please direct comments, suggestions, criticisms and questions to:

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