

Energy - Docket Optical System

From: schneider.jesse@web.de
Sent: Wednesday, October 16, 2013 11:56 AM
To: Energy - Docket Optical System
Cc: jesse.schneider@bmw.com
Subject: Docket 12--HYD--01

Categories: Ready to Docket

California Energy Commission

DOCKETED
12-HYD-01

TN 72091

OCT. 16 2013

To whom it may concern,

Attached is my response, as sponsor of SAE J2601/ J2799 to the CEC Docket 12--HYD--01.

1. For Hydrogen Fueling Protocol Specification, utilize SAE J2601-2013 as it will be published in 2013.
- Reason: This document is relaxed compared to the hydrogen fueling average pressure ramp rates (APRR), precooling window. It also has an option for "fall back fueling", which reduces the fueling APRR and a higher precooling rate (like from H70-T40 to H70-T30) if the hydrogen precooling temperature goes outside of bounds (instead of having to shut down as in the past). For highly utilized stations, SAE J2601-2013 allows to use a faster ramp rate and less precooling energy as the fueling components do not need to be "cooled down" for the next fueling. For a complete list of the changes to SAE J2601-2013 standard, I can offer to do a Webinar or an in-person presentation to the CEC/CARB/ H2 Station providers, etc.
2. Use updated Nomenclature to specify hydrogen station dispenser precooling ability: For example: H70-T40 Nomenclature (from the new SAE J2601-2013) instead of Type A, used in the TIR J2601. The "H" Range explains the Nominal Working Pressure Level, such as H70 or 70MPa (10,000 PSI). The T40 refers to the cooling window from -33C to -40C. Note, SAE J2601 specifies T30 and T20 for both H70 and H35.
3. Recommend only H70-T40 stations- Reason: H70-T40 stations will allow for 3-5 minute fueling. Lower than T40 stations are not customer acceptable and do not give a reasonable acceptable fueling time (nor the 15 minute fueling as per ZEV vehicle reference requirements).
4. It is also recommended to use SI units in the whole document, e.g. MPa only instead of using bars and PSI.
5. Throughput- A good commercial minimum station specification would be five - 7kg SAE fills for station dispenser back-to-back fueling capability
6. Use SAE J2799-2013 for communications at each station: Communications fuelings allow for more consistent fueling, more range and give the fueling more capability to achieve targets under all conditions by knowing the Compressed Hydrogen storage system. SAE J2799-2013 is also published in 2013 and similar to TIR J2799 (published in 2007), but allows for more characters for future compatibility of protocols.

If you have any questions, feel free to contact me.

Best Regards,

Jesse Schneider
J2799/J2601 Sponsor