ISO/TC 197
Hydrogen technologies

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Plenary - Component Issue Hydrogen Filters 2017-12

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Component Issues
H_2 Quality
Filters
(Short term approach)
Small modifications of the relevant standards

December 8, 2017

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ISO/DIS 19880-8: Gaseous Hydrogen Fueling Station - Part 8: Hydrogen Quality Control

C.9 Approaches to particulates (3rd Para)

6 micron meter or less fine particles, it does not affect the fuel cell vehicle has been confirmed Therefore it is appropriate to install filters with an aperture of no more than 5 micron meter (nominal) downstream of dispenser components. Filters should be as close as possible to the nozzle or hose breakaway device. Filters shall be mesh-type because of filter robustness

ISO/DIS 19880-8: Gaseous Hydrogen Fueling Station - Part 8: Hydrogen Quality Control

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Done!

ISO/CD 14687.2: Hydrogen fuel quality — Product specification

Table 2 — Fuel quality specification for PEM fuel cell road vehicle application (3rd footnote)

f Particulate includes solid and liquid particulates including oil mist. Large particulates can cause issues with vehicle components and should be limited by using filter as specified in ISO19880-1 and ISO19880-8, No visible oil shall be found in fuel at a nozzle.

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Done!

ISO/DIS 19880-1: Gaseous Hydrogen Fueling Station - Part 1: General requirements Post CD2 draft, version 19

9.1 Dispenser fuel filters (1st Para, 2nd sentence)

There shall be a filter with a capability to prevent particulates of a maximum size of 5 µm with a minimum removal efficiency of 99 % under expected process conditions, or alternatively a 5 µm filter. The filter shall be installed downstream of dispenser components which could create particulates, such as a heat exchanger, flow controller, valves etc. and be as close as possible to the nozzle or hose breakaway device.

ISO/DIS 19880-1: Gaseous Hydrogen Fueling Station - Part 1: General requirements Post CD2 draft, version 19

9.1 Dispenser fuel filters (1st Para, 2nd sentence)

There shall be a filter with a capability to prevent particulates of a maximum size of 5 µm with a minimum removal efficiency of 99 % under expected process conditions, or alternatively a 5 µm filter (nominal size). If the filter size is specified as a range of the size, the center value of the range is deemed to be the nominal size of the filter. The filter shall be installed downstream of dispenser components which could create particulates, such as a heat exchanger, flow controller, valves etc. and be as close as possible to the nozzle or hose breakaway device.

A TPD's personal suggestion