FORD 6.7 VWT FUELS TASK FORCE

WebEx Meeting Hosted by Bob Warden (SwRI) on 8/4/20 at 1:00 PM CST

Afton – Bob Campbell, Todd Dvorak, Abaigeal Ritzenthaler SwRI – Bob Warden, Jose Starling, Travis Kostan Oronite – David Lee, Mark Cooper, Josephine Martinez Intertek – Andrew Smith, Martin Chadwick TMC – Sean Moyer Ford – Michael Deegan Infineum – David Brass

The goal of this task force is to acquire a clear definition of what requirements should apply to a fuel used for the Ford 6.7L Test and how to bring it in during the precision matrix. This would encompass fuel specification requirements, implementation requirements and other fuel transition requirements.

Bob Warden gave a brief overview on the historic differences and specification requirements between ASTM D975 (specifically No.2-D S15) and PC-10 fuel (see attached presentation).

It was mentioned that local requirements such as CARB diesel or Texas Low Emission diesel (TxLED) may have slight differences in specification in order to meet specific area regulations. This primarily drives cetane and aromatic content which thus influences API Gravity.

Martin Chadwick listed a set of concerns he had with the test using a commercially available ASTM D975 fuel. Those concerns are included in the meeting presentation for reference. Martin mentioned that ASTM D975 needs to have a tighter specification for the test than it currently has in order to be deemed suitable for the test.

It was mentioned that Martin's concerns were valid, however that the goal of this group is to determine what the specifications and fuel acceptance criteria to be able to utilize an ASTM D975 fuel should look like. After this specification and approval process is laid out, the group can decide if it is something that should be perused or not worth the risk. With the amount of costs to the industry that this could potentially reduce it is our responsibility to at least take a look.

The potential precision matrix design was presented which incorporated the use of "Fuel A" and "Fuel B". It was asked how many sources of "Fuel B" would be necessary to make the group feel comfortable that the matrix design is testing for fuel insensitivity. It was mentioned that fuel from around the test labs should be considered. Potentially a fuel from the East coast or Cleveland area should be considered as one of the sources for Fuel B. It was discussed that a good potential set of sources would be a Texas LED fuel since it is already on one side of the specification range for aromaticity. The second fuel source could be from the East coast or

Cleveland Area and the third fuel source could potentially be the ASTM D975 fuel used in Fords internal durability testing.

It was discussed that there should be at least one common "Fuel B" between the labs during the precision matrix but that the statisticians would look into it and determine the appropriate run order. However, lab constraints and feasibility would be considered during the "Fuel B" testing selection process. Both labs would conduct testing on "Fuel A".

Meeting Adjourned at 1:01 PM CST