

July 8, 2019

Bill Striejewski
Chairman
Fuels and Lubricants Subcommittee
National Conference on Weights and Measures
Mailed electronically: wstrijewski@agri.nv.gov

Subject: Proposed Modification to Definition of Premium Diesel, FLR-7 Section 2.2. Diesel Fuel (UPDATED)

Dear Mr. Striejewski:

There have been several letters with proposed changes to modify the definition of premium diesel that is proposed in FLR-7, Section 2.2. The organizations signing this letter have considered the different approaches and now support the language below that is the same as API's original proposal with the addition of the word, "Dispensers" to paragraph 2.2.2. We believe that the proposed changes improve the original language while retaining the intent of FLR-7.

The following provide a summary of the changes:

- a) As written, paragraph 2.2.1. implies that the term "Premium" must be used, but it is not actually in the paragraph. The term has been added into the first sentence and the sentence is modified to make it clear that to call a diesel "Premium" it must meet all six criteria.
- b) The terms "Super, Supreme, and Premier" have been added back to the list of terms that are allowed to connote "Premium" as these are all terms associated with products that exceed "Regular" diesel and have been a staple for Premium Diesel for many years.
- c) The term "Plus" has not been added back to the list of terms. While it has also been a term associated with "Premium" diesel, it is also a term that has long been associated with a midgrade gasoline and would take away from the recognition of the new robust terms used to define Premium.
- d) The language from 2.2.1. that starts with "an additional term..." and the "Exception Note" are combined to form a new paragraph 2.2.2. This new paragraph makes clear that any marketing term, other than Premium, Super, Supreme, or Premier, can be used to sell the product; however, it must have a clearly-defined fuel property that can be tested and measured that allows the claimed improvement to actually be verified.
- e) The word "Dispensers" has been added to 2.2.2. to ensure that claims on the face of the pump are subject to the same requirements as the other areas near the pump.

The suggested changes to the version contained within the 2019, Publication 16 are shown below in red bold font (deletions), green bold font (additions) and black strikethrough/underline (existing revisions deletions/additions in FLR-7). We seek comments and concurrence to incorporate these revisions in order to enhance this voting item. (Note: Attachment 1. shows the changes in the official format to modify Handbook 130.)

2.2. Diesel Fuel. - Shall meet the latest version of ASTM D975, "Standard Specification for Diesel Fuels Oils."

2.2.1. Premium Diesel Fuel. -- All diesel fuels identified on retail dispensers **as premium, super, supreme, or premier**, ~~bills of lading, invoices, shipping papers, or other documentation~~ **with** terms

such as premium, super, supreme, plus, or premier **an additional term incorporated directly in the product or grade name that differentiates the fuel and implies the fuel provides properties that exceed minimum specification limits or performance properties** must conform to the following minimum requirements.

EXCEPTION NOTE: It is permissible to include a clearly defined fuel property that has a functional benefit, established test method, and a level, if stated as such. Example is winterized diesel which provides an operability benefit and is discussed in detail in ASTM D975 as a recommended guideline. (Added 20XX)

(a) **Cetane Number.** - A minimum cetane number of 47.0 as determined by the latest version of ASTM D613, "Standard Test Method for Cetane Number of Diesel Fuel Oil."

NOTE: ASTM D613 is the referee method; however, the following methods can be used to determine cetane number: the latest versions of ASTM D6890, "Standard Test Method for Determination of Ignition Delay and Derived Cetane Number" (DCN) of Diesel Fuel Oils by Combustion in a Constant Volume Chamber"; ASTM D7170, "Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils—Fixed Range Injection Period, Constant Volume Combustion Chamber Method"; and ASTM D7668, "Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils—Ignition Delay and Combustion Delay Using a Constant Volume Combustion Chamber Method."

(b) **Low Temperature Operability.** – A cold flow performance measurement which meets the latest version of ASTM D975, "Standard Specification for Diesel Fuel Oils," tenth percentile minimum ambient air temperature charts and maps by the latest versions of either ASTM D2500, "Standard Test Method for Cloud Point of Petroleum Products and Liquid Fuels" or the latest ASTM Standard D4539, "Standard Test Method for Filterability of Diesel Fuels by Low-Temperature Flow Test (LTFT)." **The latest version of STM Standard Test Method D6371, "Standard Test Method for Cold Filter Plugging Point of Diesel and Heating Fuels" may be used when the test results are a maximum of 6 °C below the Cloud Point.** Low temperature operability is only applicable October 1 to March 31 of each year.

(c) **Thermal Stability.**— A minimum reflectance measurement of 80 % as determined by the latest version of ASTM Standard Test Method D6468 (180 min, 150 °C).

(c) **Lubricity.** – A maximum wear scar diameter of 520 **460** micrometers as determined by the latest version ASTM D6079, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR)." ~~If an enforcement jurisdiction's single test of more than 560 micrometers is determined, a second test shall be conducted. If the average of the two tests is more than 560 micrometers, the sample does not conform to the requirements of this part.~~

NOTE: The latest version of ASTM D6079, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR)" is the referee method; however, the latest version of ASTM D7688, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR) by Visual Observation" can be used.

(d) Corrosion. – A minimum rating of B+ as determined by the most recent version of NACE TM0172, “Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines.”

NOTE: The most recent version of NACE TM0172 “Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines” is the referee method. The most recent version of ASTM D7548 “Standard Test Method for Determination of Accelerated Iron Corrosion in Petroleum Products” can be used.

(e) Filter Blocking Tendency (FBT) – A maximum of 2.2 by ASTM D2068, “Standard Test Method for Determining Filter Blocking Tendency”, following procedure B.

(f) Injector Deposit Control. – Maximum power loss in keep-clean mode of 2 % by the latest version of Coordinating European Council, CEC F-98-08, “Direct Injection, Common Rail Diesel Engine Nozzle Coking Test.”

2.2.2 Use of Other Diesel Terminology. For any terms other than premium, super, supreme, or premier included in the diesel fuel product or grade name and/or advertisements and claims displayed on dispensers, pump toppers, pole signs and bollard signs which imply improved performance, the product must have a clearly-defined fuel property with a substantiated functional benefit. Such property must be measurable utilizing industry accepted test methodologies such as those in ASTM, SAE and CEC to allow verification of the improved performance. (Added 20XX)

Thank you for your consideration of these proposed changes and we look forward to working with you on this item and responding to any questions that you may have.

Sincerely,

Prentiss Searles
American Petroleum Institute

Rob Underwood
Petroleum Marketers Association of America

David Fialkov
NATSO
Representing America’s Travel
Plazas and Truckstops

Jo Lynne Parsons
CQA on behalf of Top TIER™

Tia Sutton
Truck & Engine Manufacturers Association

Dan Bowerson
Alliance of Automobile Manufacturers

CC: Don Onwiler, Executive Director, NCWM
Michelle Wilson, Chairwoman Laws and Regulations Committee

Below are the changes as they would be reflected in the official format to modify Handbook 130.

2.2.1. Premium Diesel Fuel. -- All diesel fuels identified on retail dispensers ~~bills of lading, invoices, shipping papers, or other documentation with terms such~~ as premium, super, supreme, ~~plus~~, or premier must conform to the following minimum requirements.

- (a) **Cetane Number.** - A minimum cetane number of 47.0 as determined by the latest version of ASTM D613, "Standard Test Method for Cetane Number of Diesel Fuel Oil."

NOTE: ASTM D613 is the referee method; however, the following methods can be used to determine cetane number: the latest versions of ASTM D6890, "Standard Test Method for Determination of Ignition Delay and Derived Cetane Number" (DCN) of Diesel Fuel Oils by Combustion in a Constant Volume Chamber"; ASTM D7170, "Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils—Fixed Range Injection Period, Constant Volume Combustion Chamber Method"; and ASTM D7668, "Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils—Ignition Delay and Combustion Delay Using a Constant Volume Combustion Chamber Method."

- (b) **Low Temperature Operability.** – A cold flow performance measurement which meets the latest version of ASTM D975, "Standard Specification for Diesel Fuel Oils," tenth percentile minimum ambient air temperature charts and maps by the latest versions of either ASTM D2500, "Standard Test Method for (Cloud Point) **of Petroleum Products and Liquid Fuels**" or the latest ASTM Standard D4539, "Standard Test Method for Filterability of Diesel Fuels by Low-Temperature Flow Test (LTFT)." The latest version of ASTM D6371, "Standard Test Method for Cold Filter Plugging Point of Diesel and Heating Fuels" may be used when the test results are a maximum of 6 °C below the Cloud Point. Low temperature operability is only applicable October 1 to March 31 of each year.

- (e) ~~Thermal Stability.~~ — ~~A minimum reflectance measurement of 80 % as determined by the latest version of ASTM Standard Test Method D6468 (180 min, 150 °C).~~

- (c) **Lubricity.** – A maximum wear scar diameter of ~~520~~ **460** micrometers as determined by the latest version ASTM D6079, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR)." ~~If an enforcement jurisdiction's single test of more than 560 micrometers is determined, a second test shall be conducted. If the average of the two tests is more than 560 micrometers, the sample does not conform to the requirements of this part.~~

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- (d) **Corrosion.** – A minimum rating of B+ as determined by the most recent version of NACE TM0172, "Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines."

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- (e) **Filter Blocking Tendency (FBT)** – A maximum of 2.2 by ASTM D2068, "Standard Test Method for Determining Filter Blocking Tendency", following procedure B.

(f) Injector Deposit Control. – Maximum power loss in keep-clean mode of 2 % by the latest version of Coordinating European Council, CEC F-98-08, “Direct Injection, Common Rail Diesel Engine Nozzle Coking Test.”

2.2.2. Use of Other Diesel Terminology. For any terms other than premium, super, supreme, or premier included in the diesel fuel product or grade name and/or advertisements and claims displayed on dispensers, pump toppers, pole signs and bollard signs which imply improved performance, the product must have a clearly-defined fuel property with a substantiated functional benefit. Such property must be measurable utilizing industry accepted test methodologies such as those in ASTM, SAE and CEC to allow verification of the improved performance. (Added 20XX)

(Amended 2003 and 20XX)