

NCWM

Block 4 – FLR-20.3 and MOS-20.2

2.20.2. Documentation for Dispenser Labeling Purposes.

3.2.5. Documentation for Dispenser Labeling Purposes.

Purpose

- To more comprehensively align Handbook 130 Uniform Fuels and Automotive Lubricants Regulations with the U.S. EPA's rule that grants a 1-psi vapor pressure waiver to E15 for summertime (June 1 to September 15).
- To help ensure that consumers receive a more consistent E15 blend
- These proposed changes reflect the regulatory changes finalized by the EPA that revise the product transfer document (PTD) requirements for disclosure of the percentage concentration of ethanol in gasoline-ethanol blends, as revised in 40 CFR 80.

What Does This Proposal Do?

- **Amends FLR paragraph 3.2.5.(a)(1) and (2)** (change mirrored in MOS 2.20.2.)
 - To address the regulatory changes finalized by the U.S. EPA that revise product transfer document (PTD) requirements for disclosure of the percent concentration of ethanol in gasoline-ethanol blends, as revised in 40 CFR 80.1503.
- **Amends FLR paragraph 3.2.5.(a)(3)** (change mirrored in MOS 2.20.2.)
 - To reflect the regulatory requirements within 80.28(g)(8) which are newly applicable to E15 since it has been granted the 1.0 psi waiver.
 - Ethanol flex fuel (EFF), which may be used to produce gasoline-oxygenate blends, can have a significant difference in ethanol content depending on season and geography. EFF can range from 51 to 83 volume percent ethanol.
 - A retail gasoline location needs the correct ethanol content information in the EFF to ensure that the fuel is properly blended to meet the requirements that E15 contain at least 10 and not more than 15 volume percent ethanol per 40 CFR 80.1504(e)(3) and to demonstrate the certification requirements within 40 CFR 80.28(g)(8).

Enhances Consumer Protection

- Without ethanol volume disclosure on Ethanol Flex Fuel PTDs used for E15 blending the ethanol content could either be too high or too low.
 - Lower Ethanol Content Affects Octane
 - Setting blender pump to maximum ethanol content of E85 (83%) during periods when it is actually 51% results in 12.7 volume% ethanol.
 - May result in an octane below a posted 88 AKI.
 - High Ethanol Content Affects Blend, Label Waiver
 - Setting blender pump to minimum ethanol content of E85 (51%), but failing to adjust during periods when it is actually 83% results in 19.0 volume% ethanol.
 - No longer an EPA or ASTM D4814 compliant gasoline, renders the dispenser label incorrect, and is no longer able to take advantage of the EPA 1.0 psi waiver.

Wisconsin E85 Retail Blending

- Per the Wisconsin Bureau of Weights and Measures regarding selling E15:
 - “E85, or flex fuel, is a term that refers to high-level ethanol-gasoline blends containing 51%-83% ethanol, depending on geography and season
 - Because of the range in possible ethanol content of E85, retailers must ensure the blend ratio on all dispensers are set to properly blend for E15 at all times”¹
 - “There are two ways to ensure proper blend ratio:
 - Program the dispensers for the maximum ethanol content of the E85/Flex Fuel
 - Have a service company adjust the blend ratios every time the ethanol content in the E85/Flex Fuel changes
 - This requires regular monitoring of the ethanol content of the E85/Flex Fuel you are receiving and prompt action when the ethanol content changes”²

¹ E15: What Retailers and Service Companies Need to Know, Wisconsin Bureau of Weights and Measures, [https://www.wpmca.org/assets/ethanol/E15 What Retailers Need to Know.pdf](https://www.wpmca.org/assets/ethanol/E15%20What%20Retailers%20Need%20to%20Know.pdf), slide 24.

²IBID, slide 25.

FLR-20.3 Proposed Language

3.2.5. Documentation for Dispenser Labeling Purposes. – For automotive gasoline, automotive gasoline oxygenate blends, ethanol flex fuel for blending or racing gasoline, the retailer shall be provided, at the time of delivery of the fuel, on product transfer documents such as an invoice, bill of lading, shipping paper, or other documentation:

(a) Information ~~that complies with 40 CFR 80.1503~~ when the fuel contains ethanol as described below.

(Added 2014, Amended 20XX)

(1) Per 40 CFR 80.1503, For gasoline containing less than 9 volume percent ethanol, the following statement: “EX - Contains up to X% ethanol. The RVP does not exceed [fill in appropriate value] psi.” The term X refers to the maximum volume percent ethanol present in the gasoline.

(2) Per 40 CFR 80.1503, For gasoline containing 9 or more volume percent ethanol, a conspicuous statement that the gasoline being shipped contains ethanol and the percentage concentration of ethanol as described in 40 CFR 80.27(d)(3).

(3) To meet the requirements of 40 CFR 80.28(g)(8), for ethanol flex fuel intended for blending with gasoline or gasoline-ethanol blends, to make gasoline containing not more than 15 volume percent ethanol, the following statement: “EXX contains XX% ethanol.” The term XX refers to the volume percent ethanol present.

(Added 20XX)

(b) For fuels that do not contain ethanol, information that complies with 40 CFR 80.1503 and a declaration of the predominant oxygenate or combination of oxygenates present in concentrations sufficient to yield an oxygenate content of at least 1.0 % by volume in the fuel. Where mixtures of only ethers are present, the fuel supplier may identify either the predominant oxygenate in the fuel (i.e., the oxygenate contributing the largest mass percent oxygen) or alternatively, use the phrase “contains MTBE or other ethers.”

(Added 2014)

(c) Gasoline containing more than 0.3 % by volume methanol shall be identified as “with” or “containing” methanol.

(Added 2014) (Amended 2018)

(Amended 1996, 2014, ~~and~~ 2018 and 20XX)

MOS-20.2 Proposed Language

2.20.2. Documentation for Dispenser Labeling Purposes. – The retailer shall be provided, at the time of delivery of the fuel, on product transfer documents such as an invoice, bill of lading, shipping paper, or other documentation:

- (a) Information ~~that complies with 40 CFR 80.1503~~ when the fuel contains ethanol as described below.

(Added 2014, Amended 20XX)

(1) Per 40 CFR 80.1503, For gasoline containing less than 9 volume percent ethanol, the following statement: “EX - Contains up to X% ethanol. The RVP does not exceed [fill in appropriate value] psi.” The term X refers to the maximum volume percent ethanol present in the gasoline.

(2) Per 40 CFR 80.1503, For gasoline containing 9 or more volume percent ethanol, a conspicuous statement that the gasoline being shipped contains ethanol and the percentage concentration of ethanol as described in 40 CFR 80.27(d)(3).

(3) To meet the requirements of 40 CFR 80.28(g)(8), for ethanol flex fuel intended for blending with gasoline or gasoline-ethanol blends, to make gasoline containing not more than 15 volume percent ethanol, the following statement: “EXX contains XX% ethanol.” The term XX refers to the volume percent ethanol present.

(Added 20XX)

(b) For fuels that do not contain ethanol, information that complies with 40 CFR 80.1503 and a declaration of the predominant oxygenate or combination of oxygenates present in concentrations sufficient to yield an oxygen content of at least 1.5 mass percent in the fuel. Where mixtures of only ethers are present, the fuel supplier may identify either the predominant oxygenate in the fuel (i.e., the oxygenate contributing the largest mass percent oxygen) or alternatively, use the phrase “contains MTBE or other ethers.”

(c) Gasoline containing more than 0.15 mass percent oxygen from methanol shall be identified as “with” or “containing” methanol.

(Added 1984) (Amended 1985, 1986, 1991, 1996, ~~and~~ 2014, and 20XX)

Questions?

NCWM – FLR-20.2

1.23. Ethanol Flex Fuel and

2.1. Gasoline and Gasoline-Oxygenate
Blends

September 9, 2019

Purpose

- To more comprehensively align Handbook 130 Uniform Fuels and Automotive Lubricants Regulations with the U.S. EPA's rule that grants a 1-psi vapor pressure waiver to E15 for summertime (June 1 to September 15).
- To help ensure all E15 in the marketplace is produced to the same gasoline standards.
- To help ensure that consumers receive a more consistent E15 blend
- These proposed changes reflect the important information that an inspector needs to ensure that E15 offered at retail stations is in compliance with state and federal requirements and minimize potential harm to consumers and the environment.

What Does This Proposal Do?

- **Amends FLR paragraph 1.23.**

- Reflects the modification needed to address the fact that ethanol flex fuel intended for blending with gasoline and gasoline ethanol blends must **contain certified components or each storage tank must be certified before it can be sold as a blendstock for E15**. For example, blending of ethanol flex fuel containing natural gas liquids is prohibited unless certified consistent with 40 CFR 80.28(g)(8) requirements.

- **Amends FLR paragraph 2.1.2.(a)**

- Specifies that the range of ethanol in the gasoline-ethanol blends qualifying for the 1-psi waiver shall only **be from 9 to 15 volume percent** as per 40 CFR 80.27(d).
 - This change is unambiguous and does not require the inspector to access the federal rule to understand the applicable range of the waiver.

- **Amends FLR paragraph 2.1.2.(b)**

- Addresses the new approach EPA is taking with E15
- The EPA's recent modification to 40 CFR 80.28(g)(8) to include 15 volume % blends allows parties that make E15 at blender pumps using **E85 made with previously certified gasoline** to take advantage of the “deemed to comply” provision, if all applicable requirements are met.

Natural Gasoline

Natural Gasoline, or condensates, are a mix of C1 to C5 hydrocarbons collected from crude oil and natural gas production. Natural Gasoline can have a widely varied range of physical and chemical properties, and blending Ethanol Flex Fuel (E51 to E83) made with Natural Gasoline (condensate) into gasoline to produce E10 or E15 can dramatically change:

- Vapor Pressure: addition of natural gasoline will increase the vapor pressure of the gasoline portion of the blend
- Octane rating: natural gasoline typically has a lower RON and MON.
- Distillation curve: natural gasoline will typically boil at lower temperatures impacting the distillation curve and T10 and T50 performance attributes.
- Impurities: natural gasoline may contain higher levels of sulfur and other impurities.

Without adequate blending controls and analysis, it may not be possible to meet the ASTM 4814 specification or EPA or state environmental regulations for the gasoline with 15% ethanol if Ethanol Flex Fuel made with Natural Gasoline (condensate) is used in the blend.

What is “Deemed to Comply?”

- **A Compliance Mechanism in Lieu of Batch Testing to certify gasoline**

- a compliance mechanism enacted by Congress in section 211(h)(4) of the Clean Air Act. It is referred to as the “deemed to comply” provision, or the alternative compliance mechanism for the 1-psi Reid vapor pressure (RVP) waiver.

40 CFR 80.28(g) Defenses.

(8) ...the ethanol blender, distributor, reseller, carrier, retailer or wholesale purchaser-consumer **shall not be deemed in violation if such person can demonstrate, by showing receipt of a certification from the facility from which the gasoline was received or other evidence acceptable to the Administrator, that:**

(i) The gasoline portion of the blend complies with the Reid vapor pressure limitations of § 80.27(a); and

(ii) The ethanol portion of the blend does not exceed 15 percent (by volume); and

(iii) No additional alcohol or other additive has been added to increase the Reid vapor pressure of the ethanol portion of the blend.

...In the case of a violation alleged against a retail outlet or wholesale purchaser-consumer facility, such certification shall be deemed an adequate defense for the retailer or wholesale purchaser-consumer, provided that the retailer or wholesale purchaser-consumer is able to show certificates for all of the gasoline contained in the storage tank found in violation, and, provided that the retailer or wholesale purchaser-consumer has no reasonable basis to believe that the facts stated in the certifications are inaccurate.

Enhances Consumer Protection

- Explicitly stating the applicable ethanol range for the 1.0 psi waiver back into Handbook 130 eliminates the need for navigation and interpretation of 40 CFR 80.
- Certification is required by EPA and mitigates the risk of exposing consumers to non-compliant fuel.
 - Fuel containing uncertified components does not meet EPA requirements for sale of gasoline.
 - Variable properties can impact conformance with RVP, Octane, and Distillation limits.

Additional Information

- Uncertified Natural Gas Liquids are Prohibited in E15
 - *“E15 is allowed to be blended at blender pumps as long as **only certified components are used** (sic) Cases where blender pumps introduce uncertified components into gasoline continue to be illegal and may result in fuel that exceeds gasoline quality standards.”¹ (emphasis added)*
 - *For E15 produced at blender pumps using E85 made with natural gas liquids, use of the deemed to comply provision to demonstrate compliance would not be available. This is because the RVP of natural gas liquids can be as high as 15.0 psi and **even a small amount of natural gas liquids could cause the gasoline portion of the blend to not comply** with the applicable RVP limitations established under CAA sec. 211(h), which is required under CAA sec. 211(h)(4)(A) to be deemed in compliance.² (emphasis added)*

¹U.S. EPA “Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations: Response to Comments.” June 10, 2019, pg. 53

²84 FR 27008

FLR-20.2 -- Proposed language

1.23. Ethanol Flex Fuel. – Blends of ethanol and hydrocarbons restricted for use as fuel in ground vehicles equipped with flexible-fuel spark-ignition engines. **Ethanol Flex Fuel intended for blending with gasoline and gasoline ethanol blends shall contain certified components e.g., blending of ethanol flex fuel containing natural gas liquids is prohibited unless certified consistent with 40 CFR 80.28(g)(8) requirements.**

(Amended 2014 and 20XX)

2.1.2. Gasoline-Ethanol Blends. – When gasoline is blended with denatured fuel ethanol, the denatured fuel ethanol shall meet the latest version of ASTM D4806, “Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel,” and the blend shall meet the latest version of ASTM D4814, “Standard Specification for Automotive Spark-Ignition Engine Fuel,” with the following permissible exceptions:

(a) The maximum vapor pressure shall not exceed the latest edition of ASTM D4814 limits by more than:

(1) 1.0 psi for blends **containing at least 9 and not more than 15 volume percent ethanol** from June 1 through September 15 as allowed by EPA per 40 CFR 80.27(d).

(Amended 20XX)

(b) An ethanol blender, distributor, reseller, carrier, retailer or wholesale purchaser-consumer who exceeds the applicable standard by more than 1.0 psi, shall demonstrate, by showing receipt of a certification from the facility from which the gasoline, gasoline-ethanol blend or ethanol flex fuel blend was received, that the hydrocarbon portion of the blend complies with the Reid vapor pressure and other limitations of 40 CFR 80.27(a), as required in 40 CFR 80.28(g)(8). The certification shall be supported by evidence that the above criteria have been met, such as an oversight program which includes periodic sampling and testing of the gasoline or monitoring the volatility and ethanol content of the gasoline.

(Added 20XX)

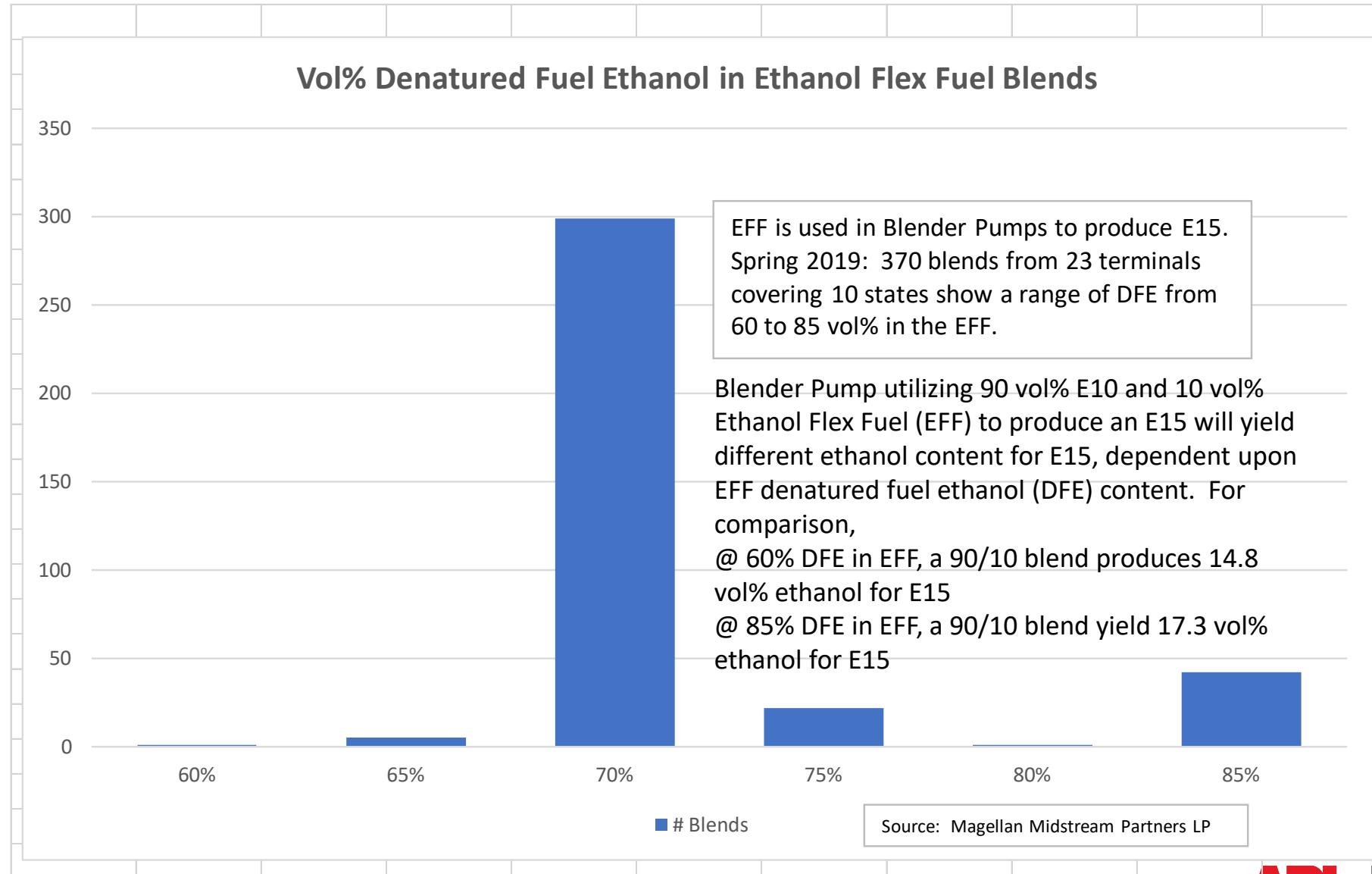
(Amended 2016, ~~and~~ 2018 and 20XX)

Questions?

Consumer Protection and Maintaining Equity in the Marketplace

- Consumer Protection
 - Consumers should not have to question whether the E15 they purchase meets federal and state requirements.
 - Consumers have the right to know if it does not.
- Maintaining Equity in the Marketplace
 - E15 fuel providers offering non-compliant E15 gasoline creates an uneven playing field and inequality in the market by competing with fuel providers who offer compliant E15 gasoline.
- E15 produced at stations though blender pumps is required to meet the same standard as E15 produced at the terminal rack.
 - The blending of uncertified natural gas liquids at the terminal rack to produce an E0, E10 or E15 gasoline is not permitted and would not be tolerated.
 - Likewise, the blending of ethanol flex fuel containing uncertified natural gas liquids with E0 or E10 at the station to produce E15 gasoline is not permitted.
 - However, on-station blending of ethanol flex fuel containing certified hydrocarbon components, such as a certified BOB, certified finished gasoline or certified natural gasoline to produce E15 is permitted.

Supporting Data



Additional Supporting Data

- North Carolina Summer 2016 Retail Data from Blender Pumps
 - 20 Fuel blends tested
 - 25% (5 of 20) contain >15 vol% Ethanol (15.6 to 16.8%)
 - 50% (10 of 20) contain <15 vol% Ethanol (12 to 14%)
- CRC E95-2 Retail Fuel Survey Conducted by NREL
 - 73 samples from 20 blender pumps in Midwest taken in Feb 2013
 - E0 to E85 included in fuel set
 - Only 3 samples of E15; all >15 vol% Ethanol (15.8, 17.3, and 17.4 vol%)
- Latest CRC Survey is RW-115
 - Focuses on E15 from Blender Pumps
 - 40+ Samples
 - Results anticipated in late 4Q19