



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
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ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF
AIR AND RADIATION

May 11, 2020

Re: Ethanol RINs and Hand Sanitizer Production for EP3 Pathway Ethanol Facilities during the COVID-19 Public Health Emergency

Dear Ethanol Producers:

EPA administers the Renewable Fuel Standard (RFS) program, including determining what volumes of fuel ethanol qualify for tradable credits (RINs) under the program. In 2014, as part of the RFS Program in 40 C.F.R. Part 80, we created the Efficient Producer Petition Process (EP3) as a streamlined process for corn starch and grain sorghum ethanol producers to demonstrate that their fuel satisfies the lifecycle greenhouse gas (GHG) reduction requirements to qualify for RINs. Consistent with 40 C.F.R. § 80.1416, over 80 dry mill ethanol plants in the United States have been approved for EP3 pathways.

Given the current 2019 coronavirus disease (COVID-19), we understand that some consumers and health care professionals are currently experiencing difficulties accessing alcohol-based hand sanitizers. To enhance the availability of hand sanitizer products, the Food and Drug Administration (FDA) has issued a number of temporary policies, including temporary guidance for producers of alcohol for hand sanitizer.¹ Based on input from industry, we understand fuel ethanol facilities can quickly and significantly enhance the availability of alcohol suitable for hand sanitizer production.

Ethanol production through an EP3 pathway is limited to 200-proof ethanol, whereas alcohol suitable for use as an ingredient in hand sanitizer (hand sanitizer alcohol) is commonly produced as 190-proof ethanol.² It is EPA's understanding that the production of hand sanitizer is separate and apart from the production of fuel ethanol, therefore ethanol producers may omit hand sanitizer alcohol production and associated energy use from the data reported to EPA under the EP3 pathway and lifecycle GHG calculations related to fuel ethanol production. The EP3 compliance conditions (e.g., recordkeeping and reporting) require EP3 ethanol producers to identify energy associated with fuel ethanol production. However, these conditions do not currently include instructions or provisions for how to separate the emissions and energy associated with hand sanitizer alcohol production from those related to the production of fuel ethanol from corn starch. For these reasons, EP3 ethanol producers have asked for EPA's input

¹ <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/temporary-policy-manufacture-alcohol-incorporation-alcohol-based-hand-sanitizer-products-during>

² For purposes of this document, fuel ethanol refers to ethanol produced at an ethanol production facility intended to be made into renewable fuel for which RINs will be generated. "Fuel ethanol" is neat ethanol (i.e., 200-proof ethanol prior to the addition of denaturant to make the ethanol unfit for human consumption).

on how to proceed with hand sanitizer alcohol production without invalidating an existing EP3 pathway.

Given the importance of expedience and of providing certainty to ethanol facilities due to the current COVID-19 public health emergency, we are supplying the following information on how ethanol facilities may allocate energy usage to ethanol production versus hand sanitizer production. This methodology provides a simplified allocation approach appropriate to the current emergency circumstances and may only be used to allocate energy usage for facilities that produce hand sanitizer in response to the COVID-19 public health emergency. EPA may choose to develop a more detailed and accurate energy allocation methodology and update this formula.

If a facility produces only hand sanitizer alcohol on a given day, they may record zero fuel ethanol production, feedstock and energy use in their EP3 calculations for that day, provided they did not expend any energy that day associated with fuel ethanol production, including for drying of DGS associated with fuel ethanol volumes.

We also understand that some plants may produce hand sanitizer alcohol and fuel ethanol on the same day. In these cases, we believe it is reasonable for producers to use energy allocation to determine the share of feedstock and energy use associated with fuel ethanol production versus hand sanitizer alcohol. For example, if a facility produced 8 million British Thermal Units (BTUs) of fuel ethanol and 2 million BTUs of hand sanitizer alcohol on a given day, then 80% of the feedstock and energy use that day may be reasonably allocated to the fuel ethanol. As an example, the simple formula below outlines a reasonable calculation of the amount of feedstock to attribute to fuel ethanol production for a given day in the scenario described above. (A similar formula would be reasonable to calculate the amount of energy to attribute to fuel ethanol production.)

$$\text{Feedstock used for fuel ethanol} = \text{Total feedstock used} * (\text{BTUs of fuel ethanol produced} / [\text{BTUs of fuel ethanol produced} + \text{BTUs of hand sanitizer alcohol produced}])$$

The following energy content values may be used for the purpose of this simplified allocation approach:

$$\text{Undenatured ethanol (200-proof)} = 76,000 \text{ BTU/gallon}$$

$$\text{Alcohol for hand sanitizer (190-proof)} = .95 * 76,000 \text{ BTU/gallon} = 72,200 \text{ BTU/gallon}$$

Producers should adjust the above values based on the actual alcohol content (proof) of the hand sanitizer alcohol they produce.

To clarify, under no circumstances may ethanol producers generate RINs for hand sanitizer alcohol. Under the Clean Air Act and EPA implementing regulations, renewable fuel means “fuel that is used to replace or reduce the quantity of fossil fuel present in a transportation

fuel, heating oil, or jet fuel.”³ Alcohol used for hand sanitizer does not satisfy this requirement and is therefore not eligible for RINs.

The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

If you have further questions please use the following contact form:

<https://www.epa.gov/fuels-registration-reporting-and-compliance-help/forms/fuels-program-helpdesk#emailhelpdesk>

Sincerely,

A handwritten signature in black ink, appearing to read "Byron J. Bunker".

Byron J. Bunker, Director
Compliance Division
Office of Transportation and Air Quality

³ 40 CFR 80.1401