

EPA's Sleight of Hand on Cellulosic Fuel Rule Change

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A few years ago, I wrote a post about the US Environmental Protection Agency's (EPA) attempt to mandate a non-existent fuel into existence, and then fine refiners for not buying this fuel. That post was called "[Why I Don't Ride a Unicorn to Work](#)", and was designed to call attention to federal biofuel mandates that weren't grounded in reality.

But what if I call a rhinoceros a unicorn? Does that mean unicorns then exist?

This week we have a guest post from Todd "Ike" Kiefer, who argues that this is effectively what the EPA has done. By declaring that the definition of cellulosic biofuels is ambiguous, the EPA has signaled that non-cellulosic feedstocks can qualify for full cellulosic tax treatment. Mr. Kiefer explains.

Previously Mr. Kiefer wrote an article highly critical of the Navy's efforts promote biofuels in a periodical that is sent to Congress and top military leaders. The article was entitled *Energy Insecurity: The False Promise of Liquid Biofuels* (discussed [here](#)). His biography can be found at the end of the article.

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by

Todd "Ike" Kiefer

The US Environmental Protection Agency is so desperate to begin counting commercial quantities of cellulosic biofuels that it has quietly rescinded the strict requirement that cellulosic fuels be made from cellulosic feedstock. This Orwellian move is revealed in their recently published new Renewable Fuel Standard (RFS) [Final Rule](#). The new rule, just published in July, amazingly declares that "EPA considers the statutory definition of cellulosic biofuel to be ambiguous," and that it believes Congress intended that cellulosic fuels can be made from non-cellulosic materials. Many references specifying "cellulosic biomass" for feedstock requirements have been removed from renewable fuel pathways K, L, M, and N for cellulosic ethanol, diesel, gasoline, and naphtha, even though these will all continue to qualify for full cellulosic biofuel Renewable Identification Numbers (RIN) that subsidize each gallon of production.

Under the new rule, biofuels generated from mixed feedstock will be allowed to claim 100% cellulosic RINs as long as their feedstock is "predominantly cellulosic," which is defined as 75% or greater. Of course, this creates a huge new validation challenge for an agency which has already been [censured by Congress](#) for proving itself incapable of policing the existing RIN system from fraud. To make it easier for landfills, EPA has waved their magic wand and

declared all landfill biogas to be 90% cellulosic in origin (regardless of the actual composition of the municipal solid waste feedstock and despite the testimony of many experts) and therefore eligible for full cellulosic RINs.

Biofuel producers are already exploiting the new rules in calling their mixed feedstock fuels “cellulosic” without having to validate what cellulosic portions, if any, are actually ending up in the product fuel. On its [biofuel-tracking website](#), the EPA suddenly reported 3.5 million gallons of cellulosic biofuel in August, more than 7 times the production recorded over the preceding 42 months. This is coincidentally the month following the EPA’s cellulosic rule change, and well before POET’s Project Liberty biorefinery commenced production in September. Previous months had never registered more than a few thousand gallons and the preceding May and June both recorded zero production. The best explanation for the sudden surge is a change in the rules, not a change in the product.

A case worth considering is Quad County Corn Processors in Iowa where a bolt-on secondary bio refinery has been added to the primary conventional corn ethanol biorefinery. In the primary refinery, corn starch is extracted from the corn kernels and then fermented and distilled in the conventional process. In the secondary refinery, the feedstock is the previously discarded corn kernel husks themselves, whose outer shell is “corn bran” composed largely of hemicellulose.

This firm claims to be the [first in Iowa to be producing commercial cellulosic ethanol](#), somehow beating out well-funded giants like POET and DuPont and Abengoa. A clue to the likely truth is in their disclosure that their new process has also increased corn oil production by 300 percent and produces cattle feed byproducts with 40% more protein. While the cellulosic corn kernel husk contains no oils or proteins, its internal starchy contents and germ do. Rather than converting the difficult cellulosic inputs into alcohol, it is much more likely that they are converting residual corn starch and germ clinging to the inside of the kernels into ethanol and corn oil and protein, and that the cellulosic kernel fiber itself is passing through largely unconverted. This theory also fits the volume of production, which only added 2 million gallons per year of ethanol to the 35 million produced from corn starch in the primary process.

Without on-site chemist inspectors to measure the mass balance of the cellulosic inputs and outputs, there is no way to assure that any fraction of Quad County’s product is truly cellulosic. Nevertheless, the new EPA rule will grant them full cellulosic RINs for their product until proven otherwise. And because the EPA has been embarrassed year after year for its unfulfilled predictions of millions of gallons of cellulosic ethanol production that have not materialized, it now has every incentive to let producers cheat.

The RFS program has also been found to be undermining its own stated goals. A recent [scientific roundtable hosted by the National Academy of Sciences](#) documents how biofuels in the US have actually increased greenhouse gas emissions and are also increasing polluting emissions compared to use of straight petroleum fuels. EPA’s own internal analysis has found that its massive RFS biofuel program has so far increased GHG emissions by 21-33% over combustion of straight gasoline motor fuel, and that it is [killing up to 245 more Americans each](#)

year with increased polluting emissions of ozone and carbon particulates. Furthermore, the US Department of Energy documents on a quarterly basis that corn ethanol and soy biodiesel, even after years of multi-billion-dollar-per-year subsidies, are still far more expensive than petroleum gasoline and diesel when correctly compared on an equal-energy basis.

As of April 2014, E85 ethanol was \$1.17 more per gallon than gasoline, and B100 biodiesel was \$0.61 more per gallon than diesel when corrected for the reduced energy content and MPG of biofuels. And a large fraction of the inputs for so-called “renewable” fuels are non-renewable fossil fuels. Much of the megatonnage of ammonia fertilizer and herbicide and pesticide (made from fossil fuel natural gas and petroleum feedstock) used to cultivate the 129 million tons of corn used exclusively for US ethanol production (Russia’s entire annual grain crop is only 85 tons) ends up in the Gulf of Mexico perpetuating the hypoxic algae-bloom dead zone that is currently the size of Connecticut. This is like a perpetual, sea-life devastating oil spill that never goes away, and that presents a growing threat to humans with red-tide algae toxins like the microcystin that recently closed Toledo’s drinking water system.

Unfortunately, the EPA, which was created to protect the nation’s land, water, and air from pollution, has become a politicized propaganda instrument for the administration’s biofuels agenda, and is intent on pushing an RFS policy that is undermining its institutional mandates in addition to harming Americans more directly. It doesn’t get much more surreal and sinister than a federal government agency redefining black as white so they can pour more taxpayer money into a program that is increasing the death rate of their own citizens while increasing pollution and greenhouse gas emissions, and subsidizing the import of foreign sugar cane ethanol while unused US gasoline is exported.

Biography

Todd “Ike” Kiefer graduated from Annapolis in 1988 with an undergraduate degree in physics, and then earned master’s degrees in strategy and military history at the Army Command and General Staff College in Fort Leavenworth KS. He retired as a Captain after a 25-year military career as Naval aviator and electronic warfare expert (EA-6B Prowler pilot). He has been deployed eight times to the Middle East and Southwest Asia, and served twenty-two months on the ground in Iraq. He commanded Al Asad Air Base in Al Anbar Province Iraq, and spent three years as Pentagon strategic planner on Joint Staff. His most recent assignment was three years as CJCS Chair and faculty instructor of strategy, leadership, and warfighting at the US Air Force Air War College in Montgomery AL.

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