



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 13 2016

OFFICE OF
AIR AND RADIATION

Mr. Jeff Zueger
Chief Executive Officer
Dakota Spirit AgEnergy
P.O. Box 66
3361 93rd Ave. SE
Spiritwood, North Dakota 58481

Dear Mr. Zueger:

On May 11, 2016, pursuant to 40 CFR 80.1416, you petitioned the agency on behalf of Dakota Spirit AgEnergy to approve an amended pathway for the production of renewable fuel (D-code 6) renewable identification numbers (RINs) under the renewable fuel standard (RFS) program. This petition provided all the necessary information that was required for this type of petition request.

In response to a previous petition Dakota Spirit AgEnergy submitted to the U.S. Environmental Protection Agency, the Agency has already evaluated a renewable fuel process used by Dakota Spirit AgEnergy. Dakota's previous petition described the adjacent Spiritwood power plant as a coal-fired plant in which the main boiler at the Spiritwood power plant operated in a combined-heat and power (CHP) configuration to provide electricity for the grid and steam for Dakota's production process by combusting coal. Based on the data submitted and information already available through analyses conducted for the final rule published on March 26, 2010 ("the March 2010 RFS Rule"), EPA conducted a lifecycle assessment and determined that the Dakota Process met the 20% lifecycle GHG threshold requirement specified in the Clean Air Act ("CAA") for renewable fuel. In February 2013 EPA issued a determination (the "February 2013 determination") approving a pathway allowing the generation of renewable fuel (D-code 6) RINs for ethanol produced from corn starch feedstock through the Dakota Process.¹

The petition which Dakota Spirit AgEnergy submitted on May 11, 2016 requested an amendment to the Dakota Process pathway approved in the February 2013 determination. The February 2013 determination stipulated that the adjacent Spiritwood power plant's main boiler would operate in a CHP configuration to provide electricity for the grid and steam for Dakota's production process by combusting coal. According to the May 2016 petition, the only change compared to the Dakota Process approved in February 2013 is the use of natural gas in the main CHP boiler at the adjacent Spiritwood power plant at rates between zero and one hundred percent. Under this modified process, steam used for

¹ <http://www.epa.gov/renewable-fuel-standard-program/dakota-ethanol-llc-approval>. The February 2013 Dakota determination describes the Dakota Process as follows: "Dakota's facility produces ethanol using corn as a feedstock; a dry mill process; imported steam (derived from an offsite combined heat and power system at an adjacent power plant and up to 4,000 Btu of steam per gallon of ethanol derived from an offsite natural gas boiler) for all steam needs including drying all distillers grains; natural gas for emissions controls; grid electricity; and generates up to 100% co-product distillers dry grains with solubles (the "Dakota Process")."

the production process could therefore be derived exclusively from natural gas, exclusively from coal, or in varying amounts from the simultaneous combustion of both natural gas and coal.

The use of natural gas instead of coal to operate the adjacent Spiritwood power plant will affect the lifecycle greenhouse gas emissions associated with renewable fuel produced by the modified Dakota Process. In the March 2010 RFS Rule, EPA analyzed the lifecycle GHG performance of a variety of ethanol from corn starch pathways, including a number of different plant types, technologies, and fuel sources. EPA's analysis found that ethanol plants powered by natural gas had lower lifecycle GHG emissions than ethanol plants powered by coal due to the lower GHG emissions factor associated with combusting natural gas as compared to coal, per Btu of fuel combusted.² Therefore the modified Dakota Process, by virtue of lowering greenhouse gas emissions by using natural gas instead of coal, will also meet the 20% lifecycle GHG threshold requirement specified in the CAA for renewable fuel, assuming that the fuel meets the other definitional criteria for renewable fuel (e.g., produced from renewable biomass, and for use as transportation fuel, heating oil, or jet fuel) specified in the CAA and EPA implementing regulations. Therefore, EPA has determined that the modified Dakota Process meets the 20% lifecycle GHG threshold requirement specified in the Clean Air Act for renewable fuel (D code 6).

This approval applies specifically to Dakota Spirit AgEnergy, and to the process, materials used, fuel produced, and process energy sources as outlined and described in the petition request submitted by Dakota Spirit AgEnergy. All requirements and conditions specified in the February 2013 determination still apply without change. This approval is effective as of signature date. EPA will consider extending a similar approval to other petitioners using similar fuel pathways as Dakota Spirit AgEnergy, but will do so on a case-by-case basis upon verification that the pathway described in the petition meets the applicable CAA requirements.

A registration update will be required pursuant to 40 CFR 80.1450(d) prior to your generating RINs pursuant to the amended pathway. In order to update your registration, please contact the EPA Fuels Program Support Line at support@epamts-support.com. After your registration update is completed, the OTAQ Reg: Fuels Programs Registration and OTAQEMTS: OTAQ EMTS Application will be modified to allow Dakota Spirit AgEnergy to generate RINs for the production of ethanol from corn feedstock using the modified production process of "Dakota Process" as described in this document.

Sincerely,



Karl Simon, Director
Transportation and Climate Division
Office of Transportation and Air Quality

² See Table 2.6-1, "Results for New Corn Ethanol Plants by Type" of the March 26, 2010 final rulemaking Regulatory Impact Analysis, available at <https://www.epa.gov/sites/production/files/2015-08/documents/420r10006.pdf>