

QAP, ENGINEERING REVIEWS AND EP3: CELLULOSIC ETHANOL FROM CORN KERNEL FIBER



With the release of the ASTM E3417-24 analytical method, ethanol producers can navigate the complex generation of Cellulosic (D3) RINs from Corn Kernel Fiber (CKF), with a recognized approach to quantify cellulosic content from corn. This method, certified by a Voluntary Consensus Standards Body (VCSB), enables ethanol producers to quantify the cellulosic content of corn and generate D3 RINs from that cellulosic portion in-situ with corn starch.

Dry Mill ethanol producers wishing to generate D3 RINs or those recently registered with the EPA to generate D3 RINs from CKF must follow requirements specific to D3 RIN generations, in addition to those requirements for D6 RIN generation. To fully leverage this opportunity, ethanol producers may wish to be under an approved Quality Assurance Plan (QAP) due to the D3 RIN market demands for Q-RINs.

WHAT YOU NEED TO KNOW

- ▶ **Q-RINs** – RINs verified by a registered independent third-party auditor using a QAP approved by EPA under § 80.1469(c) following the regulatory audit processes specified in § 80.1472. Cellulosic Biofuel RINs (D3 RINs) are commonly verified under a QAP.
- ▶ **Engineering Reviews** – Required for all renewable fuel facilities upon initial registration, every three years, and when any update allowing the facility to produce a new renewable fuel (e.g., Cellulosic Ethanol). Engineering Review updates are necessary to enable a producer to generate D3 RINs from CKF.
- ▶ **Efficient Producer Petition Process (EP3)** – Updates required for producers looking to de-bottleneck their process and exceed their D6 Grandfathered RIN production or for those that have already been approved under an EP3.



OUR SERVICES

QAP

Weaver is an EPA-approved QAP provider for in-situ processing of corn starch and corn kernel fiber ethanol production using Pathway K for **both** D6 and D3 RINs.

ENGINEERING REVIEWS

Weaver offers comprehensive engineering reviews to ensure ethanol production facilities meet all necessary regulatory requirements for generating D3 RINs.

- ▶ **3-Year Updates** – To maintain a producer's 3-year update schedule and not lose a year on that timeline, the PE site visit must occur after July 1. Therefore, any party that has already updated their registration will need an additional PE site visit after July 1 or they will end up needing their next 3-year update a year earlier.
- ▶ **Biointermediates** – Producers may also be considering selling their undenatured cellulosic ethanol to facilities looking to use the undenatured cellulosic ethanol as a feedstock, such as alcohol-to-jet facilities wishing to generate cellulosic diesel (D7) RINs. Under EPA's regulations, undenatured ethanol is a biointermediate. Biointermediates enable additional opportunities for cellulosic ethanol sales for producers.

FOR QAP AND ENGINEERING REVIEWS

- ▶ Site visits of both the ethanol producers and the laboratories conducting the analytical method.
- ▶ Available analytical methods include ASTM E3417-24 and NREL laboratory analytical procedure (LAP) described in the technical report NREL/TP-2800-76724. Working with labs to conduct the testing earlier provides for the availability of storage of cellulosic ethanol production prior to registration per 40 CFR §80.1458.

WEAVER CAN HELP

Our Energy Compliance Services team is engaged with producers to provide QAP and engineering reviews and can guide you through every step as you need assistance. Leveraging the knowledge of our Energy Compliance Services team, our clients access a deep bench of talent with experience in various clean fuels programs, the Inflation Reduction Act, and other voluntary initiatives. From facility registration consulting and EP3 pathway modeling to QAP services for your co-processing facility, Weaver is equipped to assist your company in navigating the complexities of evolving environmental regulations.

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