

Focus on Fuels

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Modifying the RFS Program One Refinery at a Time



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The renewable fuel program currently requires refiners to blend about 19.3 billion gallons of renewable fuel into the gasoline and diesel consumed in the United States. The amount of renewable fuel used in the United States is determined by the number of renewable fuel credits (RINs or renewable identification numbers) retired at the end of the year. In theory, for every gallon of renewable fuel blended into transportation fuel, one RIN is generated. In fact, the renewable fuel obligation is based on ethanol and RINs are generated on an ethanol equivalent basis. Therefore, a gallon of biodiesel or other higher energy content renewable fuel generates more than one RIN. The required volume of renewable fuel is translated into a percentage by dividing the renewable fuel required to be blended by the total petroleum fuel produced or imported for US consumption. In 2018, this translates to about 10.7%. In practical terms this amounts to nominally 10% ethanol in gasoline and 3-5% biodiesel in gasoline. Up until this year, most refiners and importers have been subject to the obligations of the program. However, recent developments by small refineries and even one large refining complex are asking that they not be required to participate in the program, primarily due to economic hardship.

TM&C Services in Fuel Regulations

TM&C provides a full range of services in its fuels regulatory practice. Some of these services are listed below.

- Preparing, reviewing and submitting fuels reports, including CDX submissions.
- Facility audits for compliance with fuels programs.
- Interaction with EPA to pose fuels-related questions.
- Industry specialist assistance for required gasoline attestations.

Modifying the RFS Program One Refinery at a Time

Small Refinery Exemption for the RFS Program

The regulations that describe the small refinery provisions in the RFS program are primarily found in 40 CFR 80.1401, and 80.1441. Excerpts from the regulations are shown below.

§80.1401 Definitions

..

.Small refinery means a refinery for which the average aggregate daily crude oil throughput (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels

....

§80.1441 Small refinery exemption.

(a)(1) Transportation fuel produced at a refinery by a refiner, or foreign refiner (as defined at §80.1465(a)), is exempt from January 1, 2010 through December 31, 2010 from the renewable fuel standards of §80.1405, and the owner or operator of the refinery, or foreign refinery, is exempt from the requirements that apply to

- Industry specialist assistance for in-line blending audits.
- Assistance in setting up a fuels compliance group/program.
- Personnel reviews of compliance-related groups.
- Compliance status reviews and recommendations.
- Negotiations/consultation during EPA enforcement actions.
- 3rd-Party Engineering reviews.
- Due diligence reviews of facilities and companies in RFS RINs Program.

obligated parties under this subpart M for fuel produced at the refinery if the refinery meets the definition of a small refinery under §80.1401 for calendar year 2006.

...

(2) A refiner may petition the Administrator for an extension of its small refinery exemption, based on disproportionate economic hardship, at any time.

...

(b)(1) A refiner owning a small refinery must submit a verification letter to EPA containing all of the following information:

...

(2) *Verification letters must be submitted by July 1, 2010 to one of the addresses listed in paragraph (h) of this section.*

Although the original definition of a small refinery was based on 2006 operation and the original exemption was only for 2010, section (b)(1) clearly allows petitions for "any time". Also, it appears from the regulatory language that a small refiner must also have sent a verification letter to the EPA by July 1, 2010 to qualify under the small refinery definition.

Essentially all of the EPA fuels compliance programs include a provision for phasing in the regulation for small refiners or small refineries and/or allowing a hardship provision for smaller refineries to have an extended date for compliance. In the RFS program, small refiners are defined as refinery systems that have less than 155,000 B/D of refining capacity and less than 1,500 total employees in 2006. A small refinery is defined as having an aggregate throughput of less than 75,000 B/D. There are some very big differences between a small refiner and a small refinery. The small refiner definition is based on capacity not throughput. Also, a large refining group with more than 155,000 B/D capacity can still have a small refinery that could seek an exemption under the small refinery header but not under the small refiner exemption. The result is that all registered small refineries can seek an exemption from the RFS obligation based on disproportionate economic hardship at "any time". A list of selected small refineries (not necessarily registered small refineries) based on the 2018 Oil & Gas Journal capacities is shown below.

Table 1 Selected Small Refineries (<75,000 B/D Crude Capacity)		
Owner	Crude Capacity, B/D	State
Hunt Consolidated Inc.	38,000	Alabama
Kern Oil & Refining	25,650	California
Countrymark Cooperative	29,007	Indiana
Calumet Lubricants	57,000	Louisiana
Shell Oil	43,700	Louisiana
Ergon	23,750	Mississippi
Calumet Specialty Products	33,250	Montana
CHS Inc.	58,045	Montana
ExxonMobil	59,755	Montana
Phillips 66	60,000	Montana
Andeavor Group	24,700	New Mexico
Andeavor Group	19,000	New Mexico
Andeavor Group	70,870	New Mexico
CVR	71,250	Oklahoma
Red Apple	66,500	Pennsylvania
Delek	70,300	Texas
Delek	71,250	Texas
Chevron	53,000	Utah
Big West	30,400	Utah
Holly Frontier	39,330	Utah
Andeavor	59,850	Utah
Trailstone LP	39,900	Washington
Holly Frontier	49,400	Wyoming
Par Petroleum	17,575	Wyoming
Sinclair	24,225	Wyoming
Total	1,135,707	

There are a few other refineries with crude oil capacity less than 75,000 B/D. Another refinery group that could be interesting in this context are refineries slightly greater than 75,000 B/D. The list of those is shown below.

Table 2 Refineries Near 75,000 B/D Capacity (Greater than 75,000 and Less than 85,500 B/D Crude Capacity)		
Owner	Crude Capacity, B/D	State
Delek	80,750	Arkansas
Delek	85,500	California
Valero	82,650	California
Delek	78,850	Louisiana
Placid	82,000	Louisiana
Transworld Oil	85,500	Louisiana
Sinclair	85,500	Wyoming
Total	580,750	

Total US refining capacity, based on the 2018 Oil & Gas Journal Survey is about 18.5 million B/D. The total refining capacity that falls in the small or near small category is about 1.72 million B/D. Therefore, the total capacity that could theoretically apply for an exemption is slightly less than 10% of US capacity. It is not likely that all of the near small refineries in Table 2 would fall below the 75,000 B/D operating rate. Refineries are usually run as full as possible under the assumption that incremental throughput increases netback to the refinery. However, in a case where all of the gasoline and diesel produced might be exempt from the RFS costs, incremental runs above 75,000 B/D might not be justified. In a worst case scenario, 9-10% of the refining capacity would be exempt from the RFS program but the gasoline and distillate that would be exempt from the program would be less than 9-10% because the very small refineries produce less gasoline and diesel percentage wise compared to the larger more complex refineries. However, even a reduction of 5% in petroleum transportation fuels subject to the program could result in significant impact on the availability of RINs. Less demand for the RINs should lower the price of the RINs. In addition, more available RINs should build the prior RIN inventory. Directionally, all of these impacts should be applauded by the petroleum industry. However, those refiners still subject to the program are likely to contend that they are disadvantaged versus the exempt refiners. In a political issue, such as the renewable fuel program, there is never 100% satisfaction. Someone will always cry foul.

One consideration on the impact of exempting small refineries is that the EPA could just make the obligation for the remaining obligated parties higher. The RFA has already brought up this subject and it is likely to become a serious issue if significant volumes of transportation fuel are excluded from the program through exemptions. In this case, RINs will not be excess to the same extent if the percentage obligation is not raised due to the exemptions. Therefore, RIN pricing and availability will not be

impacted by the exemptions. In that case, the obligated parties are likely to protest more vehemently since they will be shouldering more of the RFS burden.

As a side note, the RFS program also includes the ability of a foreign refinery that meets the small refinery qualifications to be eligible for the small refinery exemption. It seems interesting in a politically driven program that foreign small refiners would be eligible to bring in gasoline and diesel exempt from the obligations that apply to at least 90% of the domestic refiners.

One Refiner at a Time

One refiner has taken opposition to the renewable fuel program to DEFCON 4. A shot across the bow of the RFS ship has been fired by Philadelphia Energy Solutions (PES), one of the largest refiners on the East Coast. PES filed for chapter 11 bankruptcy at the same time filing a reorganization plan to keep the plant open. A key feature in the plan is to allow the refinery to be exempt from their RFS obligation, presumably for 2017. It has been reported in the press that the plan also includes the sale of some RINs that they currently own to help in the reorganization. This is another example of the program fraying on the edges. The PES system is reported to be 337,000 B/D. This is a significant percentage of the capacity of all the small refineries that will qualify for an RFS exemption. This case will be very instructive to see the economically challenged refiner vs. the politically driven renewable fuel program. Any solution will have serious negative reaction from either the renewable fuel lobby or those on the East Coast that might lose jobs.

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