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(2) Completed construction by December 19, 2010.

(d) The baseline volume of ethanol that is produced from facilities and any expansions all of which commenced construction after December 19, 2007 and on or before December 31, 2009, shall not be subject to the requirement that lifecycle greenhouse gas emissions be at least 20 percent less than baseline lifecycle greenhouse gas emissions if such facilities are fired with natural gas, biomass, or a combination thereof at all times the facility operated between December 19, 2007 and December 31, 2009 and if:

(1) The owner or operator did not discontinue construction for a period of 18 months after commencement of construction;

(2) The owner or operator completed construction within 36 months of commencement of construction; and

(3) The baseline volume continues to be produced through processes fired with natural gas, biomass, or any combination thereof.

(e) The annual volume of renewable fuel during a calendar year from facilities described in paragraphs (c) and (d) of this section that exceeds the baseline volume shall be subject to the requirement that lifecycle greenhouse gas emissions be at least 20 percent less than baseline lifecycle greenhouse gas emissions.

(f) If there are any changes in the mix of renewable fuels produced by those facilities described in paragraph (d) of this section, only the ethanol volume (to the extent it is less than or equal to baseline volume) will not be subject to the requirement that lifecycle greenhouse gas emissions be at least 20 percent less than baseline lifecycle greenhouse gas emissions. Any party that changes the fuel mix must update their registration as specified in §80.1450(d).

[75 FR 14863, Mar. 26, 2010, as amended at 75 FR 26036, May 10, 2010; 75 FR 37733, June 30, 2010; 75 FR 79976, Dec. 21, 2010]

#### §80.1404 [Reserved]

# §80.1405 What are the Renewable Fuel Standards?

(a)(1) Renewable Fuel Standards for 2010.

(i) The value of the cellulosic biofuel standard for 2010 shall be 0.004 percent.

(ii) The value of the biomass-based diesel standard for 2010 shall be 1.10 percent.

(iii) The value of the advanced biofuel standard for 2010 shall be 0.61 percent.

(iv) The value of the renewable fuel standard for 2010 shall be 8.25 percent.

(2) Renewable Fuel Standards for 2011.(1) [Reserved]

(ii) The value of the biomass-based diesel standard for 2011 shall be 0.69 percent.

(iii) The value of the advanced biofuel standard for 2011 shall be  $0.78\,$  percent.

(iv) The value of the renewable fuel standard for 2011 shall be 8.01 percent.

(3) Renewable Fuel Standards for 2012.(i) [Reserved]

(ii) The value of the biomass-based diesel standard for 2012 shall be 0.91 percent.

(iii) The value of the advanced biofuel standard for 2012 shall be 1.21 percent.

(iv) The value of the renewable fuel standard for 2012 shall be 9.23 percent.

(4) Renewable Fuel Standards for 2013.(i) The value of the cellulosic biofuel

standard for 2013 shall be 0.0005 percent. (ii) The value of the biomass-based diesel standard for 2013 shall be 1.13 percent.

(iii) The value of the advanced biofuel standard for 2013 shall be 1.62 percent.

(iv) The value of the renewable fuel standard for 2013 shall be 9.74 percent.

(5) Renewable Fuel Standards for 2014.(i) The value of the cellulosic biofuel

standard for 2014 shall be 0.019 percent. (ii) The value of the biomass-based diesel standard for 2014 shall be 1.41

diesel standard for 2014 shall be 1.41 percent. (iii) The value of the advanced

biofuel standard for 2014 shall be 1.51 percent.

(iv) The value of the renewable fuel standard for 2014 shall be 9.19 percent.

(6) Renewable Fuel Standards for 2015.(i) The value of the cellulosic biofuel

standard for 2015 shall be 0.069 percent. (ii) The value of the biomass-based diesel standard for 2015 shall be 1.49

percent.

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(iii) The value of the advanced biofuel standard for 2015 shall be 1.62 percent.

(iv) The value of the renewable fuel standard for 2015 shall be 9.52 percent.

(7) Renewable Fuel Standards for 2016.(i) The value of the cellulosic biofuel

standard for 2016 shall be 0.128 percent. (ii) The value of the biomass-based

diesel standard for 2016 shall be 1.59 percent.

(iii) The value of the advanced biofuel standard for 2016 shall be 2.01 percent.

(iv) The value of the renewable fuel standard for 2016 shall be 10.10 percent.

(8) Renewable Fuel Standards for 2017.(i) The value of the cellulosic biofuel

standard for 2017 shall be 0.173 percent. (ii) The value of the biomass-based

diesel standard for 2017 shall be 1.67 percent.

(iii) The value of the advanced biofuel standard for 2017 shall be 2.38 percent.

(iv) The value of the renewable fuel standard for 2017 shall be 10.70 percent.

(9) Renewable Fuel Standards for 2018.(i) The value of the cellulosic biofuel

standard for 2018 shall be 0.159 percent. (ii) The value of the biomass-based diesel standard for 2018 shall be 1.74

percent. (iii) The value of the advanced biofuel standard for 2018 shall be 2.37 percent.

(iv) The value of the renewable fuel standard for 2018 shall be 10.67 percent.

(10) Renewable Fuel Standards for 2019.

(i) The value of the cellulosic biofuel standard for 2019 shall be  $0.230\ {\rm percent}.$ 

(ii) The value of the biomass-based diesel standard for 2019 shall be 1.73 percent.

(iii) The value of the advanced biofuel standard for 2019 shall be 2.71 percent.

(iv) The value of the renewable fuel standard for 2019 shall be 10.97 percent. (11) Renewable Fuel Standards for 2020.

(i) The value of the cellulosic biofuel standard for 2020 shall be 0.32 percent.

(ii) The value of the biomass-based diesel standard for 2020 shall be 2.30 percent.

(iii) The value of the advanced biofuel standard for 2020 shall be 2.93 percent.

(iv) The value of the renewable fuel standard for 2020 shall be 10.82 percent.

(12) Renewable Fuel Standards for 2021.(i) The value of the cellulosic biofuel standard for 2021 shall be 0.33 percent.

(ii) The value of the biomass-based diesel standard for 2021 shall be 2.16 percent.

(iii) The value of the advanced biofuel standard for 2021 shall be 3.00 percent.

(iv) The value of the renewable fuel standard for 2021 shall be 11.19 percent.

(13) Renewable Fuel Standards for 2022.(i) The value of the cellulosic biofuel standard for 2022 shall be 0.35 percent.

(ii) The value of the biomass-based diesel standard for 2022 shall be 2.33 percent.

(iii) The value of the advanced biofuel standard for 2022 shall be 3.16 percent.

(iv) The value of the renewable fuel standard for 2022 shall be 11.59 percent.

(v) The value of the supplemental total renewable fuel standard for 2022 shall be 0.14 percent.

(b) EPA will calculate the value of the annual standards and publish these values in the FEDERAL REGISTER by November 30 of the year preceding the compliance period.

(c) EPA will calculate the annual renewable fuel percentage standards using the following equations:

$$\operatorname{Std}_{\operatorname{CB},i} = 100 * \frac{\operatorname{RFV}_{\operatorname{CB},i}}{\left(G_{l} - RG_{l}\right) + \left(GS_{l} - RGS_{l}^{\prime}\right) - GE_{l} + \left(D_{l} - RD_{l}\right) + \left(DS_{l} - RDS_{l}^{\prime}\right) - DE_{l}}$$

$$\operatorname{Std}_{\operatorname{BBD},i} = 100 * \frac{\operatorname{RFV}_{\operatorname{BBD},i} \times 1.5}{\left(G_{i} - RG_{i}\right) + \left(GS_{i} - RGS_{i}\right) - GE_{i} + \left(D_{i} - RD_{i}\right) + \left(DS_{i} - RDS_{i}\right) - DE_{i}}$$

$$\operatorname{Std}_{\operatorname{AB}_{i} i} = 100 * \frac{\operatorname{RFV}_{\operatorname{AB}_{i} i}}{\left(G_{l} - RG_{l}\right) + \left(GS_{l} - RGS_{l}'\right) - GE_{l} + \left(D_{l} - RD_{l}\right) + \left(DS_{l} - RDS_{l}'\right) - DE_{l}}$$

$$\operatorname{Std}_{\mathtt{RF},\mathtt{i}} = 100 * \frac{\operatorname{RFV}_{\mathtt{RF},\mathtt{i}}}{\left(G_{l} - RG_{l}\right) + \left(GS_{l} - RGS_{l}\right) - GE_{l} + \left(D_{l} - RD_{l}\right) + \left(DS_{l} - RDS_{l}\right) - DE_{l}}$$

Where:

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- $\mathrm{Std}_{\mathrm{CB,i}}$  = The cellulosic biofuel standard for year i, in percent.
- $\mathrm{Std}_{\mathrm{BBD},i}$ = The biomass-based diesel standard for year i, in percent.
- $\mathrm{Std}_{AB,i}$ = The advanced biofuel standard for year i, in percent.
- $\mathbf{Std}_{\mathsf{RF},i}\text{=}$  The renewable fuel standard for year i, in percent.
- $RFV_{CB,i}$ = Annual volume of cellulosic biofuel required by 42 U.S.C. 7545(o)(2)(B) for year i, or volume as adjusted pursuant to 42 U.S.C. 7545(o)(7)(D), in gallons.
- $RFV_{BBD,i}\text{=}$  Annual volume of biomass-based diesel required by 42 U.S.C. 7545 (o)(2)(B) for year i, in gallons.
- $\mathrm{RFV}_{\mathrm{AB},i}$ = Annual volume of advanced biofuel required by 42 U.S.C. 7545(o)(2)(B) for year i, in gallons.
- RFV<sub>RF,i</sub>= Annual volume of renewable fuel required by 42 U.S.C. 7545(o)(2)(B) for year i, in gallons.
- $\begin{array}{l} G_i \text{=} \text{ Amount of gasoline projected to be used} \\ \text{ in the 48 contiguous states and Hawaii,} \\ \text{ in year i, in gallons.} \end{array}$
- D<sub>i</sub>= Amount of diesel projected to be used in the 48 contiguous states and Hawaii, in year i, in gallons.
- RG<sub>i</sub>= Amount of renewable fuel blended into gasoline that is projected to be consumed in the 48 contiguous states and Hawaii, in year i, in gallons.

- RD<sub>i</sub>= Amount of renewable fuel blended into diesel that is projected to be consumed in the 48 contiguous states and Hawaii, in year i, in gallons.
- GS<sub>i</sub>= Amount of gasoline projected to be used in Alaska or a U.S. territory, in year i, if the state or territory has opted-in or opts-in, in gallons.
- RGS<sub>i</sub>= Amount of renewable fuel blended into gasoline that is projected to be consumed in Alaska or a U.S. territory, in year i, if the state or territory opts-in, in gallons.
- DS<sub>i</sub>= Amount of diesel projected to be used in Alaska or a U.S. territory, in year i, if the state or territory has opted-in or opts-in, in gallons.
- RDS<sub>i</sub>= Amount of renewable fuel blended into diesel that is projected to be consumed in Alaska or a U.S. territory, in year i, if the state or territory opts-in, in gallons.
- $$\label{eq:GE} \begin{split} \mathrm{GE}_i &= \mathrm{The\ total\ amount\ of\ gasoline\ projected} \\ & \mathrm{to\ be\ exempt\ in\ year\ i,\ in\ gallons,\ per} \\ & \$\$80.1441\ \mathrm{and\ 80.1442}. \end{split}$$
- $DE_i = The total amount of diesel fuel projected to be exempt in year i, in gallons, per <math display="inline">\$\$ 80.1441 \mbox{ and } 80.1442.$

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(d) The price for cellulosic biofuel waiver credits will be calculated in accordance with §80.1456(d) and published on EPA's Web site.

[77 FR 1354, Jan. 9, 2012, as amended at 78 FR 49830, Aug. 15, 2013; 79 FR 25031, May 2, 2014;
80 FR 18140, Apr. 3, 2015; 80 FR 77517, Dec. 14, 2015; 81 FR 89804, Dec. 12, 2016; 82 FR 58527, Dec. 12, 2017; 83 FR 63744, Dec. 11, 2018; 85 FR 7074, Feb. 6, 2020; 87 FR 39661, July 1, 2022]

### §80.1406 Who is an obligated party under the RFS program?

(a)(1) An obligated party is any refiner that produces gasoline or diesel fuel within the 48 contiguous states or Hawaii, or any importer that imports gasoline or diesel fuel into the 48 contiguous states or Hawaii during a compliance period. A party that simply blends renewable fuel into gasoline or diesel fuel, as defined in §80.1407(c) or (e), is not an obligated party.

(2) If the Administrator approves a petition of Alaska or a United States territory to opt-in to the renewable fuel program under the provisions in §80.1443, then "obligated party" shall also include any refiner that produces gasoline or diesel fuel within that state or territory, or any importer that imports gasoline or diesel fuel into that state or territory.

(b) For each compliance period starting with 2010, an obligated party is required to demonstrate, pursuant to \$80.1427, that it has satisfied the Renewable Volume Obligations for that compliance period, as specified in \$80.1407(a).

(c) Aggregation of facilities—(1) Except as provided in paragraphs (c)(2), (d) and (e) of this section, an obligated party may comply with the requirements of paragraph (b) of this section in the aggregate for all of the refineries that it operates, or for each refinery individually.

(2) An obligated party that carries a deficit into year i + 1 must use the same approach to aggregation of facilities in year i + 1 as it did in year i.

(d) An obligated party must comply with the requirements of paragraph (b) of this section for all of its imported gasoline or diesel fuel in the aggregate.

(e) An obligated party that is both a refiner and importer must comply with the requirements of paragraph (b) of

this section for its imported gasoline or diesel fuel separately from gasoline or diesel fuel produced by its domestic refinery or refineries.

(f) Where a refinery or import facility is jointly owned by two or more parties, the requirements of paragraph (b) of this section may be met by one of the joint owners for all of the gasoline or diesel fuel produced/imported at the facility, or each party may meet the requirements of paragraph (b) of this section for the portion of the gasoline or diesel fuel that it produces or imports, as long as all of the gasoline or diesel fuel produced/imported at the facility is accounted for in determining the Renewable Volume Obligations under §80.1407. In either case, all joint owners are subject to the liability provisions of §80.1461(d).

(g) The requirements in paragraph (b) of this section apply to the following compliance periods: Beginning in 2010, and every year thereafter, the compliance period is January 1 through December 31.

[75 FR 14863, Mar. 26, 2010, as amended at 75 FR 26037, May 10, 2010]

## \$80.1407 How are the Renewable Volume Obligations calculated?

(a) The Renewable Volume Obligations for an obligated party are determined according to the following formulas:

(1) Cellulosic biofuel.

Where:

- RVO<sub>CB.i</sub> = The Renewable Volume Obligation for cellulosic biofuel for an obligated party for calendar year i, in gallons.
- RFStd<sub>CB.i</sub> = The standard for cellulosic biofuel for calendar year i, determined by EPA pursuant to §80.1405, in percent.
- $\mathrm{GV}_{i}$  = The non-renewable gasoline volume, determined in accordance with paragraphs (b), (c), and (f) of this section, which is produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.
- DV<sub>i</sub> = The non-renewable diesel volume, determined in accordance with paragraphs (d), (e), and (f) of this section, produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.