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Part III - Administrative, Procedural, and Miscellaneous

Sustainable Aviation Fuel Credit; Registration; Certificates; Request for Public Comments

Notice 2023-06

SECTION 1. PURPOSE

This notice provides guidance on the new sustainable aviation fuel credits under §§ 40B and 6426(k) of the Internal Revenue Code (Code) (collectively referred to as a SAF credit or the SAF credit) and related credit and payment rules under §§ 34(a)(3), 38, 87, and 6427(e)(1). This notice also provides rules related to the § 4101 registration requirements. Finally, this notice requests comments from the public related to the SAF credit to assist the Department of the Treasury (Treasury Department) and the Internal Revenue Service (IRS) in developing additional guidance on the SAF credit in the future.

SECTION 2. OVERVIEW

Section 13203 of Public Law 117-169, 136 Stat. 1818 (August 16, 2022), commonly known as the Inflation Reduction Act of 2022, added § 40B and amended §§ 38(b), 40A, 87, 4101(a), 6426, and 6427(e)(1), enacting a sustainable aviation fuel credit, effective for certain fuel mixtures containing sustainable aviation fuel sold or used after

December 31, 2022, and prior to January 1, 2025.

The SAF credit is equal to the product of— (1) the number of gallons of sustainable aviation fuel in a qualified mixture, multiplied by (2) the sum of— (A) $1.25, plus (B) the "applicable supplementary amount" (as calculated under section 4.05 of this notice) with respect to such sustainable aviation fuel. See §§ 40B(a) and 6426(k). In general, the applicable supplementary amount increases the $1.25 base credit by $0.01 for each percentage point by which the "lifecycle greenhouse gas emissions reduction percentage" (as defined in section 3.01(4) of this notice) of the sustainable aviation fuel exceeds 50 percent. See section 3 of this notice for the requirements of sustainable aviation fuel and qualified mixtures; see section 4 of this notice for calculating the applicable supplementary amount and lifecycle greenhouse gas emissions reduction percentage.

For a claimant to qualify for the SAF credit, §§ 40B(f)(1) and 6426(k)(3) require the producer or importer of the sustainable aviation fuel to be registered with the IRS under § 4101. See section 5 of this notice for information on how a producer or importer may register; see section 6.02 of this notice for which party is the proper claimant.

A claimant who qualifies for the SAF credit may either: (1) claim an excise tax credit under § 6426(k), in which case the claimant first claims the SAF credit against its § 4081 excise tax liability for a particular quarter and, to the extent that the credit exceeds the claimant's § 4081 excise tax liability for that quarter, the claimant may claim either a payment under § 6427(e)(1) or a refundable income tax credit under § 34(a)(3); or (2) claim a nonrefundable § 38 general business income tax credit under § 38(b)(35) and include the amount of the § 40B credit in gross income under § 87. See

section 6 of this notice regarding the procedures for making a claim as well as the claim requirements.

Sections 40B and 6426(k) allow a SAF credit for the production of a qualified mixture which, broadly speaking, is a mixture of sustainable aviation fuel and kerosene. Section 40B(d)(1)(A) defines sustainable aviation fuel by reference to two American Society for Testing and Materials (ASTM) specifications: ASTM D7566 and certain Fischer Tropsch provisions of ASTM D1655 Annex A1. The referenced ASTM specifications describe two distinct processes to produce a qualified mixture. Generally, under ASTM D7566, a person produces a qualified mixture by mixing a synthetic blending component with kerosene. In contrast, under ASTM D1655 Annex A1, a person produces a qualified mixture by co-processing an appropriate feedstock with a petroleum feedstock during the production of kerosene that results in a qualified mixture, although no separate step of "mixing" a sustainable aviation fuel with kerosene occurs.

This notice primarily addresses the SAF credit requirements applicable to a qualified mixture produced under ASTM D7566. Treasury and the IRS, in consultation with the Department of Transportation and the Federal Aviation Administration, understand that no jet fuel is currently produced in the United States under ASTM D1655 Annex A1 that would qualify for the SAF credit. As a result, this notice provides limited information with respect to ASTM D1655 Annex A1 and requests comments with respect to ASTM D1655 Annex A1 so that future guidance may accurately address these types of claims.

SECTION 3. SUSTAINABLE AVIATION FUEL; QUALIFIED MIXTURES; TAXATION OF SUSTAINABLE AVIATION FUELS AND QUALIFIED MIXTURES

.01 Sustainable aviation fuel. Under § 40B(d)(1), the term sustainable aviation fuel

means the portion of liquid fuel that is not kerosene that (i) either (A) meets the specifications of “ASTM D7566” (as defined in section 3.01(1)(a) of this notice to mean the ASTM D7566 Annexes), or (B) meets the specifications of ASTM D1655 Annex A1 (as defined in section 3.01(1)(b) of this notice); and (ii) satisfies the requirements of section 3.01(2) through (4) of this notice regarding sustainability. A liquid fuel that meets the specifications of one of the ASTM D7566 Annexes or meets the specifications of ASTM D1655 Annex A1, but does not meet the requirements of section 3.01(2) through (4) of this notice is ineligible for the SAF credit.

Sustainable aviation fuel may be categorized as either (i) a SAF synthetic blending component or (ii) a co-processed liquid fuel that was produced by co-processing petroleum with synthesized hydrocarbons derived from synthesis gas via the Fischer Tropsch process (FT hydrocarbons). This notice refers to a liquid fuel that meets the specifications of one of the ASTM D7566 Annexes and that satisfies the requirements of 3.01(2) through (4) of this notice as a SAF synthetic blending component. This notice refers to a liquid fuel that meets the specifications of ASTM D1655 Annex A1, in which the FT hydrocarbons were derived from biomass that satisfies the requirements of section 3.01(2) through (4) of this notice as a SAF co-processed qualified mixture. FT hydrocarbons, which are derived from biomass that satisfies the requirements of section 3.01(2) through (4) of this notice, are referred to as SAF FT hydrocarbons.

(1) ASTM International specifications. For purposes of this notice, references to ASTM or ASTM International Standard are references to specifications published by ASTM International (formerly ASTM). For availability of ASTM specifications, see § 48.4081-1(d) of the Manufacturers and Retailers Excise Tax Regulations (26 CFR part

48).

(a) ASTM D7566 Annexes. The term ASTM D7566 Annexes means any of the annexes in ASTM D7566 that provide the specifications for a pathway to create a synthetic blending component that can be blended with ASTM D1655 kerosene (as defined in section 3.02(2)(a) of this notice) to make a qualified mixture.

(b) ASTM D1655 Annex A1. The term ASTM D1655 Annex A1 means the Fischer Tropsch provisions of ASTM D1655 Annex A1 that are contained in section A1.2.2.2, which provides a pathway for producing a liquid fuel by co-processing up to five percent of FT hydrocarbons with petroleum to make a qualified mixture. For purposes of this notice, the term petroleum includes any conventionally sourced hydrocarbons permitted under ASTM D1655 Annex A1.

Liquid fuel produced under section A1.2.2.1 does not qualify for the SAF credit because section A1.2.2.1 defines a pathway for producing a liquid fuel from co-processing an applicable material (or materials derived from an applicable material) with a feedstock that is not biomass (for example, petroleum), which § 40B(d)(1)(B) excludes from the SAF credit. See section 3.01(2) of this notice.

(2) Not derived from co-processing applicable materials. To qualify as sustainable aviation fuel, the liquid fuel must not be derived from co-processing an "applicable material" (or materials derived from an applicable material) with a feedstock that is not biomass (within the meaning of § 45K(c)(3) of the Code). Section 40B(d)(2)(A) defines the term applicable material for this purpose to mean (i) monoglycerides, diglycerides, and triglycerides, (ii) free fatty acids, and (iii) fatty acid esters. Section 45K(c)(3) defines the term biomass to mean any organic material other than (A) oil and natural gas (or

any product thereof), and (B) coal (including lignite) or any product thereof.

(3) Not derived from palm fatty acid distillates or petroleum. To qualify as sustainable aviation fuel, the liquid fuel must not be derived from palm fatty acid distillates or petroleum.

(4) Lifecycle greenhouse gas emissions reduction percentage. To qualify as sustainable aviation fuel, the liquid fuel must have been certified in accordance with § 40B(e) as having a lifecycle greenhouse gas emissions reduction percentage of at least 50 percent. Section 40B(e) defines the term lifecycle greenhouse gas emissions reduction percentage to mean, with respect to any sustainable aviation fuel, the percentage reduction in lifecycle greenhouse gas emissions achieved by such fuel as compared with petroleum-based jet fuel, as defined in accordance with (i) the most recent Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) that has been adopted by the International Civil Aviation Organization (ICAO) with the agreement of the United States and is set out in Annex 16 - Environmental Protection: Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) (2018), https://elibrary.icao.int/home/product-details/229739, and related documents, or (2) any similar methodology that satisfies the criteria under § 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), as in effect on August 16, 2022. See section 4.04 of this notice for a safe harbor to calculate the lifecycle greenhouse gas emissions reduction percentage.

.02 Qualified mixture.

(1) Requirements. Under § 40B(c), a qualified mixture means a mixture of sustainable aviation fuel and kerosene, but only if— (1) such mixture is produced by the taxpayer in the United States (defined in § 7701(a)(9) of the Code to mean the states and the District of Columbia); (2) such mixture is used by the taxpayer (or sold by the taxpayer for use) in an aircraft; (3) such sale or use is in the ordinary course of a trade or business of the taxpayer; and (4) the transfer of such mixture to the fuel tank of such aircraft occurs in the United States.

A qualified mixture may be produced by either mixing a SAF synthetic blending component with kerosene (to produce a SAF qualified mixture; see section 3.02(2) of this notice) or by co-processing SAF FT hydrocarbons with petroleum to produce a co-processed liquid fuel (which is a SAF co-processed qualified mixture; see section 3.02(3) of this notice).

(2) SAF qualified mixture. A SAF qualified mixture means a mixture of a SAF synthetic blending component (within the meaning of section 3.01 of this notice) with ASTM D1655 kerosene (as defined in section 3.02(2)(a) of this notice) that meets the requirements of ASTM D7566 (as defined in section 3.02(2)(b) of this notice) and which may be regarded as ASTM D1655 compliant SAF.

(a) ASTM D1655 kerosene and ASTM D1655 compliant SAF. The term ASTM D1655 kerosene means petroleum-based kerosene that meets the specifications set forth in ASTM D1655 and does not include liquid fuel co-processed with FT hydrocarbons or the addition of a synthetic blending component.

The term ASTM D1655 compliant SAF means ASTM D1655 kerosene that has been

blended with a SAF synthetic blending component described in a specific ASTM D7566 Annex and meets the batch specifications described in ASTM D7566, Table 1. It also means kerosene produced by co-processing SAF FT hydrocarbons with petroleum under ASTM D1655 Annex A1. Once the mixture meets those batch specifications or is produced under ASTM D1655 Annex A1, the mixture may be regarded as jet fuel under ASTM D1655. ASTM D1655 compliant SAF is fully fungible with ASTM D1655 kerosene.

The terms “ASTM D1655 kerosene” and “ASTM D1655 compliant SAF” are not ASTM designations, but rather are used in this notice to distinguish between two types of fuel (for federal excise tax purposes) that qualify as jet fuel under the ASTM D1655 specifications for jet fuel.

(b) ASTM D7566. The term ASTM D7566 means the batch specifications set forth under ASTM D7566, Table 1, which includes the blending requirements for each synthetic blending component and the overall specifications and requirements for the blended mixture to be regarded as ASTM D1655 compliant SAF. Blending percentage requirements for various synthetic blending components with ASTM D1655 kerosene are listed in section 6 of ASTM D7566 and range from 10 to 50 percent.

(3) SAF co-processed qualified mixture. A SAF co-processed qualified mixture means a co-processed liquid fuel that meets the requirements of ASTM D1655 Annex A1 (within the meaning of section 3.01(1)(b) of this notice) and in which the biomass used to create the FT hydrocarbons satisfies the requirements of section 3.01(2) through (4) of this notice.

ASTM D1655 Annex A1 provides a pathway for producing a liquid fuel by co-

processing FT hydrocarbons with petroleum that results in a qualified mixture if the producer uses SAF FT hydrocarbons. This process is functionally different from mixing two distinct products, such as a synthetic blending component and kerosene, to create a qualified mixture. Here, petroleum-based hydrocarbons and up to five percent of SAF FT hydrocarbons are processed together to produce kerosene, a portion of which was derived from sustainable sources. Before processing, neither the petroleum-based hydrocarbons nor the SAF FT hydrocarbons qualify as kerosene.

As a result, a SAF co-processed qualified mixture must be produced in the United States. A co-processed liquid fuel that is imported into the United States is ineligible for the SAF credit. The requirement that the SAF co-processed qualified mixture be produced in the United States is not met by mixing co-processed liquid fuel with additional ASTM D1655 kerosene or ASTM D1655 compliant SAF (as defined in section 3.02(2)(a) of this notice) in the United States.

Only the portion of the SAF co-processed qualified mixture attributable to the SAF FT hydrocarbons (derived from biomass) qualifies for the SAF credit. Conversely, no portion of the kerosene derived from a petroleum-based source in a SAF co-processed qualified mixture qualifies for the SAF credit.

.03 Taxation of sustainable aviation fuels and qualified mixtures.

(1) In general.

(a) Taxable fuel. Section 4081(a)(1) imposes an excise tax on certain removals, entries, and sales of taxable fuel. Section 4083(a) defines taxable fuel as gasoline, diesel fuel, and kerosene. The term kerosene, for the purpose of kerosene-type jet fuel, means any liquid covered by ASTM D1655 or military specification MIL–DTL–5624T

(Grade JP–5) or MIL–DTL–83133E (Grade JP–8).

(b) Blended taxable fuel. Section 4081(b)(1) imposes an excise tax on taxable fuel removed or sold by the "blender" thereof, subject to certain credits provided in § 4081(b)(2). Section 48.4081-1(b) defines blender as any person that produces "blended taxable fuel." Section 48.4081-1(c)(1)(i) generally defines the term blended taxable fuel as any taxable fuel that is produced outside the bulk transfer/terminal system by mixing (A) taxable fuel with respect to which tax has been imposed under § 4041(a)(1) or 4081(a) (other than taxable fuel for which a credit or payment has been allowed) and (B) any other liquid on which tax has not been imposed under § 4081.

(2) SAF synthetic blending component. A SAF synthetic blending component will not be treated as a taxable fuel for purposes of the excise tax imposed on taxable fuel under § 4081. A liquid fuel produced under the ASTM D7566 Annexes cannot, by definition, meet the specifications of ASTM D1655 until it is blended with kerosene. Accordingly, a SAF synthetic blending component is not treated as a taxable fuel for purposes of § 4081(a). However, the SAF synthetic blending component is taxable under § 4041(a) or (c) if it is used in a diesel-powered highway vehicle or a diesel-powered train, or as fuel in aviation.

(3) SAF qualified mixture. After a SAF qualified mixture is produced, the entire mixture is taxable under § 4081. The SAF qualified mixture is taxable under § 4081(a) if produced within the bulk transfer/terminal system. Alternatively, the SAF qualified mixture is taxable under § 4081(b) if it is produced with previously-taxed kerosene outside the bulk transfer/terminal system (subject to the credit for previously-taxed fuel under § 4081(b)(2)).

(4) Co-processed liquid fuel and SAF co-processed qualified mixture. Both co-processed liquid fuel and a SAF co-processed qualified mixture meet the specifications of ASTM D1655 and are therefore kerosene. As a result, any product produced under ASTM D1655 Annex A1 is a taxable fuel for purposes of § 4081(a).

SECTION 4. LIFECYCLE GREENHOUSE GAS EMISSIONS REDUCTION PERCENTAGE AND APPLICABLE SUPPLEMENTARY AMOUNT

.01 Applicability. The methods of determining the lifecycle greenhouse gas emissions reduction percentage and the applicable supplementary amount under section 4 of this notice apply only to a SAF qualified mixture.

.02 In general. The SAF synthetic blending component must be certified, in accordance with § 40B(e), as having a lifecycle greenhouse gas emissions reduction percentage of at least 50 percent. See section 4.04 of this notice. This requirement also applies to § 6426(k). See § 6426(k)(2).

Once the SAF synthetic blending component meets the minimum 50 percent reduction threshold, the lifecycle greenhouse gas emissions reduction percentage is then used to calculate the applicable supplementary amount of the SAF credit under § 40B(b) or 6426(k). The applicable supplementary amount increases the $1.25 base credit by $0.01 for each whole percentage point by which the lifecycle greenhouse gas emissions reduction percentage with respect to such fuel exceeds 50 percent. The applicable supplementary amount determined under §§ 40B(b) and 6426(k) is calculated in $0.01 increments and cannot exceed $0.50.

.03 Lifecycle greenhouse gas emissions of petroleum-based jet fuel. Until further notice, for purposes of calculating the lifecycle greenhouse gas emissions reduction percentage, the IRS will treat the lifecycle greenhouse gas emissions of petroleum-

based jet fuel as equal to 89 grams of carbon dioxide equivalent per megajoule of energy or 89 gCO2e/MJ as the baseline. This is the standard adopted by the ICAO. See Annex 16 - Environmental Protection: Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) (2018), https://elibrary.icao.int/home/product-details/229739.

.04 Calculating the lifecycle greenhouse gas emissions reduction percentage; safe harbor. The IRS will accept a lifecycle greenhouse gas emissions reduction percentage calculated from the ICAO's most recent publication of the CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels. At the time of publication of this notice, the most recently published version (Fourth Edition, June 2022) is available at: https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Eligible-Fuels.aspx.

The IRS will also accept a lifecycle greenhouse gas emissions reduction percentage calculated from the ICAO's most recent publication of the CORSIA Methodology for Calculating Actual Life Cycle Emissions Values. At the time of publication of this notice, the most recently published version (Third Edition, June 2022) is available at: https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Eligible-Fuels.aspx.

The lifecycle greenhouse gas emissions reduction percentage is calculated by multiplying a fraction, the numerator of which is the baseline for the lifecycle greenhouse gas emissions of petroleum-based jet fuel (LC) minus the lifecycle emissions value (LSf), and the denominator of which is the baseline (LC), by 100 percent ([(LC - LSf)/ LC] × 100% = lifecycle greenhouse gas emissions reduction

percentage). The lifecycle greenhouse gas emissions reduction percentage must be rounded down to the nearest whole percent.

The registered producer or importer of the SAF synthetic blending component must record the lifecycle greenhouse gas emissions reduction percentage on the Certificate for SAF Synthetic Blending Component. See section 7.02 of this notice.

.05 Calculating the applicable supplementary amount. To calculate the applicable supplementary amount for purposes of §§ 40B(b) and 6426(k), subtract 50 from the lifecycle greenhouse gas emissions reduction percentage, then multiply that number by the applicable rate for the supplementary amount (currently $0.01) ([lifecycle greenhouse gas emissions reduction percentage – 50] × applicable rate for the supplementary amount). The applicable supplementary amount under §§ 40B(b) and 6426(k) must be calculated using the same methodology used to determine the lifecycle greenhouse gas emissions reduction percentage under § 40B(e).

The registered producer or importer of the SAF synthetic blending component must record the applicable supplementary amount on the Certificate for SAF Synthetic Blending Component. See section 7.02 of this notice.

.06 Example. A blender used 100,000 gallons of a SAF synthetic blending component to produce a SAF qualified mixture. The SAF synthetic blending component was produced via a pathway that has a lifecycle carbon dioxide emission equivalent of 28.9 grams per megajoule of energy. To calculate the amount of the credit, first calculate the lifecycle greenhouse gas emissions reduction percentage (rounding down to the nearest whole percent): [(89 gCO2e/MJ – 28.9 gCO2e/MJ)/ 89 gCO2e/MJ] × 100% = 67.5%, rounded down to 67%.

Because the lifecycle greenhouse gas emissions reduction percentage is at least 50 percent, the SAF synthetic blending component qualifies for the $1.25/gallon credit. Additionally, the SAF synthetic blending component qualifies for the applicable supplementary amount, which is calculated by subtracting 50 from the lifecycle greenhouse gas emissions reduction percentage (67), and then multiplying by the applicable rate ($0.01): (67 – 50) × $0.01 = $0.17 per gallon.

The SAF credit is calculated as follows: 100,000 gallons × ($1.25 + $0.17) = $142,000.00.

SECTION 5. REGISTRATION; SUSTAINABLE AVIATION FUEL; BLENDERS OF SAF SYNTHETIC BLENDING COMPONENTS; PRODUCERS OF SAF CO-PROCESSED QUALIFIED MIXTURES

.01 Registration.

(1) In general. Section 4101(a)(1) provides that every person producing or importing sustainable aviation fuel must register with the Secretary at such time, in such form and manner, and subject to such terms and conditions, as the Secretary may by regulations prescribe. Section 48.4101-1 provides the registration requirements for fuel registrants.

Section 40B(f) provides that no SAF credit is allowed with respect to any sustainable aviation fuel unless the producer or importer of such fuel is registered with the Secretary under § 4101, and provides such information with respect to such fuel as the Secretary may require for purposes of carrying out § 40B, including certification (in such form and manner as the Secretary prescribes) from an unrelated party demonstrating compliance with— (1) any general requirements, supply chain traceability requirements, and information transmission requirements established under the CORSIA described in § 40B(e)(1), or (2) in the case of any methodology established under § 40B(e)(2),

requirements similar to the requirements described in § 40B(f)(2)(A)(i). See also § 6426(k)(3).

Until further notice, the IRS will treat the producer or importer of a SAF synthetic blending component and the United States producer of a SAF co-processed qualified mixture as the persons required to register under § 4101. The IRS will not register an importer of a co-processed liquid fuel or an importer of a SAF qualified mixture as an importer of sustainable aviation fuel due to the requirement that a qualified mixture be produced in the United States. See § 40B(c)(1).

(2) Procedure for registering. Application for registration is made on Form 637, *Application for Registration (For Certain Excise Tax Activities)*, under Activity Letter "SA," in accordance with the instructions for that form. The IRS is revising Form 637 to add Activity Letter "SA." Until the revised Form 637 is released, applicants may use the current Form 637 by writing in "Activity Letter SA" and providing the following:

(a) The annual volume of the sustainable aviation fuel the applicant produces;

(b) The locations and a description of the applicant's production facilities;

(c) The feedstocks and sources of feedstocks used to produce the sustainable aviation fuel;

(d) A statement indicating whether the applicant produces sustainable aviation fuel under an ASTM D7566 Annex or ASTM D1655 Annex A1, and if applicable, the specific ASTM D7566 Annex under which the SAF synthetic blending component is produced;

(e) A sample Certificate of Analysis (as defined in section 6.04(3) of this notice) for the type of sustainable aviation fuel the applicant produces, demonstrating

conformance with either an ASTM D7566 Annex or ASTM D1655 Annex A1;

(f) Certification from the International Sustainability and Carbon Certification (ISCC), Roundtable on Sustainable Biomaterials (RSB), or other unrelated party demonstrating compliance with— (i) any general requirements, supply chain traceability requirements, and information transmission requirements established under CORSIA, which has been adopted by the ICAO with the agreement of the United States, or (ii) any similar methodology that satisfies the criteria under section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), as in effect on August 16, 2022;

(g) Certification in accordance with § 40B(e) that the SAF synthetic blending component has a lifecycle greenhouse gas emissions reduction percentage of at least 50 percent;

(h) The names and addresses of any person(s) acting for the applicant as an agent or broker in buying, selling, or transporting any sustainable aviation fuel;

(i) The business entities to which the applicant sells sustainable aviation fuel;

(j) The business entities from or with which the applicant buys, trades, transfers, or exchanges any sustainable aviation fuel; and

(k) The annual volume of the sustainable aviation fuel the applicant buys, sells, trades, transfers, or exchanges.

(3) Requirements. The IRS will register an applicant with Activity Letter “SA” only if the IRS— (A) concludes that the applicant is engaged as a producer or importer of a SAF synthetic blending component or the producer of a SAF co-processed qualified mixture, or is likely to become so engaged within a reasonable time after being registered under § 4101; and (B) is satisfied with the filing, deposit, payment, reporting,

and claim history for all federal taxes of the applicant and any related person (as defined in § 48.4101-1(b)(5)).

The IRS will not consider an applicant likely to become engaged in the business of producing or importing a SAF synthetic blending component or producing a SAF co-processed qualified mixture unless the producer or importer (as applicable) can provide certification from an unrelated party demonstrating compliance with § 40B(d)(1)(D) and (f)(2)(A).

(4) Certification demonstrating compliance with § 40B(f)(2)(A); safe harbor. The IRS will consider a producer or importer of a SAF synthetic blending component or the producer of a SAF co-processed qualified mixture to meet the requirements of § 40B(f)(2)(A), relating to the sustainability requirements of CORSIA, if the producer or importer (as applicable) has a valid, relevant certificate from ISCC, RSB, or other ICAO-approved sustainability certification scheme. At the time of publication of this notice, the most recently published version (First Edition, November 2020) of CORSIA Approved Sustainability Certification Schemes, which lists ICAO-approved sustainability certification schemes, is available at https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Eligible-Fuels.aspx.

.02 Blenders of SAF synthetic blending components and ASTM D1655 kerosene used to produce SAF qualified mixtures. Section 4101 and § 48.4101-1 require any person who produces taxable fuel to be registered. Section 4083(a)(1) defines taxable fuel to include kerosene, which for jet fuel means ASTM D1655 kerosene (and ASTM D7566 and D1655 compliant SAF). The person who blends the SAF synthetic blending component with ASTM D1655 kerosene to produce a SAF qualified mixture produces ASTM D1655 compliant SAF, which meets the specifications of ASTM D1655 and is a taxable fuel.

As a result, the blender is required to be registered either under Activity Letter "S" if the blending occurs within the bulk transfer/terminal system (that is, above the rack) or under Activity Letter "M" if the blending occurs outside the bulk transfer/terminal system (that is, below the rack).

Pursuant to § 48.4101-1(h)(1)(v), each registrant must notify the IRS of any change in the information the registrant submitted in connection with its application for registration within 10 days after the change occurs. A previously-registered "S" registrant or a previously-registered "M" registrant that begins producing SAF qualified mixtures must inform the IRS of this change by contacting the IRS office with which the registrant is registered.

.03 Producers of SAF co-processed qualified mixtures and co-processed liquid fuel. As stated above, § 4101 and § 48.4101-1 require any person who produces taxable fuel to be registered. The person who produces a SAF co-processed qualified mixture is also producing kerosene, a taxable fuel under § 4083(a)(1). As a result, the producer is required to be registered under Activity Letter "S" in addition to Activity Letter "SA."

A person who produces co-processed liquid fuel (regardless of whether it qualifies for the SAF credit or as a SAF co-processed liquid fuel) is also producing kerosene. As a result, the producer is required to be registered under Activity Letter "S."

In addition, a previously-registered "S" registrant that begins producing co-processed liquid fuel or a SAF co-processed qualified mixture must inform the IRS of this change by contacting the IRS office with which the registrant is registered.

SECTION 6. CLAIMS; MAKING A CLAIM; CLAIM REQUIREMENTS

.01 In general. In order to qualify for a SAF credit, the claimant must produce, then use or sell for use, a qualified mixture that meets all requirements set forth in this notice. The producer or importer of the sustainable aviation fuel must also be registered under § 4101. See also §§ 40B(f)(1), 6426(k)(3). See section 6.04 of this notice for the claim requirements applicable to a SAF qualified mixture produced under ASTM D7566.

.02 Claimant. The person eligible to claim the SAF credit is the person who produces the qualified mixture, assuming all other statutory requirements are met. With respect to a SAF qualified mixture, the person who produces the SAF qualified mixture does not have to be the same person that produced or imported the SAF synthetic blending component. With respect to a SAF co-processed qualified mixture, the person who produces the SAF co-processed qualified mixture is the proper claimant.

.03 Making a claim.

(1) Excise tax claims under §§ 6426(k) and 6427(e)(1); refundable income tax claims under § 34(a)(3).

(a) In general. First, the claimant must claim an excise tax SAF credit under § 6426(k), along with any credit under § 6426(c) or (e) against its § 4081 excise tax liability. To the extent that the SAF credit under § 6426(k) (along with the sum of any credit under § 6426(c) or (e)) exceeds the claimant's § 4081 liability for a particular quarter, the claimant may claim a payment under § 6427(e)(1) or a refundable income tax credit under § 34(a)(3). A claimant may only make one claim for each gallon of sustainable aviation fuel used in a qualified mixture. A claimant may not make a claim under § 6427(e)(1) or § 34(a)(3) for an amount that will be claimed or is required to be claimed under § 6426(k).

(b) Procedure for making a claim. A claimant claiming an excise tax SAF credit under § 6426(k) must first make the claim on a Form 720, *Quarterly Federal Excise Tax Return*, if reporting excise tax liability, in accordance with the instructions for that form. For federal income tax purposes, a claimant's expense for the § 4081 excise tax, whether taken as a deduction or as a component of cost of goods sold, is reduced by the amount of the excise tax credit under § 6426(k). See generally Exxon Mobil Corp. v. United States, 43 F.4th 424 (5th Cir. 2022).

The payment under § 6427(e)(1) is claimed on Form 720 or Form 8849, Schedule 3, *Certain Fuel Mixtures and the Alternative Fuel Credit*, in accordance with the instructions for those forms. A person may not make a claim on a Form 8849, Schedule 3 for an amount that is claimed (or will be claimed) on Form 720, Form 720X, *Amended*

Quarterly Federal Excise Tax Return, or Form 4136, *Credit for Federal Tax Paid on Fuels*.

The § 34(a)(3) refundable income tax credit is claimed on Form 4136 in accordance with the instructions for that form, for amounts otherwise allowable under § 6427(e)(1), but that were not claimed on Form 720 or Form 8849, Schedule 3.

Although the SAF credit applies to fuel sold or used after December 31, 2022, a claimant will be ineligible to make a claim immediately after the credit goes into effect due to the registration requirements imposed by §§ 40B and 6426(k). In general, a claimant will be able to file an amended return (Form 720X) to claim a credit under § 6426(k) with respect to qualified mixtures produced beginning on January 1, 2023, once the appropriate persons are registered and the other requirements of this notice are met. Similarly, a claimant will be able to use § 34(a)(3) to claim a refundable income tax credit, which it would otherwise be eligible to claim as a payment under § 6427(e)(1).

(2) Nonrefundable income tax credit. The § 40B credit is a § 38 general business credit. A claimant may make this claim on Form 8864, *Biodiesel, Renewable Diesel, and Sustainable Aviation Fuels Credit*, in accordance with the instructions for that form.

Section 87 provides that gross income includes the SAF credit determined with respect to the taxpayer for the taxable year under § 40B(a). Therefore, a claimant must include the amount of the § 40B credit in its gross income.

The amount of the credit determined under § 40B with respect to any sustainable aviation fuel must be properly reduced to take into account any benefit provided with respect to such sustainable aviation fuel solely by reason of the application of § 6426(k)

or 6427(e)(1). See § 40B(g). In addition, for purposes of § 40A (biodiesel and renewable diesel used as fuel), the term “biodiesel” shall not include any liquid with respect to which a credit may be determined under § 40 or 40B.

A claimant will be ineligible to make a claim immediately after the credit goes into effect due to the registration requirements; however, a claimant generally will be able to file a Form 8864 with an amended income tax return to claim a credit under § 40B once the appropriate persons are registered and the other requirements of this notice are met.

.04 Claim requirements.

(1) Applicability. The claim requirements under section 6.04 of this notice apply only to claims made with respect to a SAF qualified mixture produced under ASTM D7566.

(2) Certificate for SAF Synthetic Blending Component. Each claim for a credit or payment under § 34(a)(3), 40B, 6426(k), or 6427(e)(1) with respect to a SAF qualified mixture must contain an original Certificate for SAF Synthetic Blending Component described in section 7.02 of this notice and, if applicable, the Statement(s) of SAF Synthetic Blending Component Reseller described in section 7.03 of this notice. However, in the case of a certificate and statement that support a claim made on more than one claim form, the certificate and statement are to be included with the first claim and the claimant is to provide information related to the certificate on any subsequent claim in accordance with the instructions applicable to the claim form.

(3) Declaration for SAF Qualified Mixture. Each claim for a credit or payment under § 34(a)(3), 40B, 6426(k), or 6427(e)(1) with respect to a SAF qualified mixture

must contain a Declaration for SAF Qualified Mixture. The declaration consists of a statement that is signed under penalties of perjury by a person with authority to bind the claimant, is substantially in the same form as the model declaration in Appendix A of this notice, and contains all the information necessary to complete such declaration.

The declaration must contain the Certificate of Analysis (COA) reference number for the COA associated with the SAF qualified mixture, as well as the COA reference numbers for the SAF synthetic blending component and the D1655 kerosene that the claimant blended to produce the SAF qualified mixture. A COA is a document from an unrelated party used to verify the type and quality of fuel used as jet fuel. Separate COAs are generated for each synthetic blending component, for the kerosene used to mix with the synthetic blending component, and for the SAF qualified mixture. The COA reference number for the SAF synthetic blending component must match the COA reference number for the SAF synthetic blending component on the Certificate for SAF Synthetic Blending Component.

SECTION 7. CERTIFICATES AND STATEMENTS

.01 Applicability. This section describes the certificate and reseller statement applicable only to SAF synthetic blending components.

.02 Certificate for SAF Synthetic Blending Component. The Certificate for SAF Synthetic Blending Component required by section 6.04(2) of this notice consists of (i) a statement that is signed under penalties of perjury by a person with authority to bind the producer or importer of a SAF synthetic blending component, (ii) is substantially in the same form as the model certificate in Appendix B of this notice, and (iii) contains all the information necessary to complete the certificate. The certificate identification number

is determined by the producer or importer and must be unique to each certificate.

A producer or importer may, with respect to a particular sale of a SAF synthetic blending component, provide multiple separate certificates, each applicable to a portion of the total volume of the SAF synthetic blending component sold. Thus, for example, a producer or importer that sells 5,000 gallons of a SAF synthetic blending component may provide its buyer with five certificates for 1,000 gallons each. The multiple certificates may be provided to the buyer at or after the time of sale or to a reseller in the circumstances described in section 7.03(1) of this notice.

.03 Statement of SAF Synthetic Blending Component Reseller.

(1) In general. A person that receives a Certificate for SAF Synthetic Blending Component, and subsequently sells the SAF synthetic blending component without producing a SAF qualified mixture, must provide to its buyer the certificate, and a statement that is substantially in the same form as the model statement in Appendix C of this notice. The statement must contain all of the information necessary to complete the model statement in Appendix C and be attached to the original Certificate for SAF Synthetic Blending Component.

A reseller cannot make multiple copies of a Certificate for SAF Synthetic Blending Component in order to use it for multiple buyers. If a single certificate applies to a SAF synthetic blending component that a reseller expects to sell to multiple buyers, then the reseller should return the certificate (together with any statements provided by intervening resellers) to the producer or importer. The producer or importer may reissue multiple Certificates for SAF Synthetic Blending Component to the reseller that reflect the appropriate volumes. The reissued certificates must include the certificate

identification number from the certificate that was returned.

(2) Withdrawal of the right to provide a statement. The IRS may withdraw the right of a buyer of a SAF synthetic blending component to provide the buyer's Certificate for SAF Synthetic Blending Component and Statement of SAF Synthetic Blending Component Reseller under this section 7 if the IRS cannot verify the accuracy of the buyer's statements.

SECTION 8. REQUEST FOR COMMENTS

.01 General comments. The Treasury Department and the IRS request comments on whether any issues related to the SAF credit provided in this notice require clarification or additional guidance. The IRS anticipates issuing additional guidance on the SAF credit.

.02 Comments on specific questions. The Treasury Department and IRS invite specific comments in response to the following questions:

(1) Section 40B(e)(2) provides that "any similar methodology, which satisfies the criteria under § 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)), as in effect on the date of enactment of this section" may be used to determine the reduction in lifecycle greenhouse gas emissions. What methods exist that could qualify as a "similar methodology"? Do the lifecycle emissions values that have been developed by the Environmental Protection Agency for the Renewable Fuel Standard qualify as a "similar methodology"? Does the Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) model developed by the Argonne National Laboratory qualify as a "similar methodology"?

(2) Section 40B(f)(2)(A)(ii) (concerning general requirements, supply chain

traceability requirements, and information requirements established under CORSIA) provides that in the case of any methodology established under § 40B(e)(2) (concerning any similar methodology, which satisfies the criteria § 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H))), requirements similar to the requirements described in section 40B(e)(1) apply. What CORSIA requirements are needed to ensure supply chain traceability of information related to lifecycle greenhouse gas emissions and what unrelated party or parties are qualified to demonstrate compliance?

(3) Are any SAF co-processed qualified mixtures currently being produced in the United States? Are any SAF FT hydrocarbons currently being produced in the United States?

(4) With respect to the registration requirements under § 4101, this notice treats the person who produces a SAF co-processed qualified mixture as a sustainable aviation fuel producer. Is it more appropriate to treat the producer of the SAF FT hydrocarbons as the sustainable aviation fuel producer?

(5) What types of verification exist to show what portion of a SAF co-processed qualified mixture is attributable to FT hydrocarbons versus petroleum? Are carbon dating or mass balancing appropriate types of verification?

(6) What entities are capable of providing the certifications required by § 40B(d)(1)(D) (relating to a lifecycle greenhouse gas emissions reduction percentage of at least 50 percent) and (f)(2)(A) (concerning general requirements, supply chain traceability requirements, and information requirements established under CORSIA or a similar methodology under the Clean Air Act) with respect to SAF co-processed qualified mixtures?

(7) Section 40B(c)(4) requires that the transfer of the qualified mixture into an aircraft occur in the United States. What types of verification exist to show that the qualified mixture is transferred to the fuel tank of an aircraft in the United States?

SECTION 9. SUBMISSION OF COMMENTS

.01 Written comments should be submitted by [INSERT DATE [60] DAYS AFTER MEDIA RELATIONS RELEASE]. The subject line for the comments should include a reference to Notice 2023-06. Comments may be submitted in one of two ways:

(1) electronically via the Federal eRulemaking Portal at http://www.regulations.gov (type IRS-2023-06 in the search field on the regulations.gov homepage to find this notice and submit comments); or

(2) alternatively, by mail to: Internal Revenue Service, CC:PA:LPD:PR (Notice 2023-06), Room 5203, P.O. Box 7604, Ben Franklin Station, Washington, DC 20044.

.02 All commenters are strongly encouraged to submit comments electronically. The Treasury Department and the IRS will publish for public availability any comment submitted electronically, or on paper, to its public docket on www.regulations.gov.

SECTION 10. PAPERWORK REDUCTION ACT

Sections 5 and 6.04 of this notice set forth collections of information to be provided to the IRS with Form 637, and to determine whether a claimant qualifies for a SAF credit. The collections of information will be reflected in the submission to the Office of Management and Budget (OMB) for review in accordance with the Paperwork Reduction Act (44 U.S.C. 3507(c)) that is associated with Form 637 (OMB control number 1545-1835). This submission will be updated in the ordinary course. An agency may not conduct or sponsor, and a person is not required to respond to, a

collection of information unless the collection of information displays a valid OMB control number.

SECTION 11. DRAFTING INFORMATION

The principal author of this notice is Elisabeth Shellan of the Office of Associate Chief Counsel (Passthroughs & Special Industries). For further information regarding this notice, call the energy security guidance contact number at (202) 317-5254 (not a toll-free call).

Appendix A – Model Declaration for SAF Qualified Mixture

DECLARATION FOR SAF QUALIFIED MIXTURE

(To support a claim related to sustainable aviation fuel (SAF)
under the Internal Revenue Code)

The undersigned blender of a SAF qualified mixture ("Claimant") hereby declares the following:

1. _____

_____

_____

Claimant's name, address, and employer identification number (EIN)

2. Claimant declares that the SAF qualified mixture to which this declaration relates:

(A) Is a mixture of SAF synthetic blending component and kerosene;

(1) The SAF synthetic blending component used to create the mixture meets the requirements of an ASTM D7566 Annex (the certificate of analysis reference number demonstrating conformance with such standard is _____, dated _____ and the Certificate for SAF Synthetic Blending Component, for the SAF synthetic blending component used to create the mixture, certificate identification number is _____, dated _____);

(2) The kerosene used to create the mixture meets the requirements of ASTM D1655 (the certificate of analysis reference number demonstrating conformance with such standard is _____, dated _____);

(3) The SAF qualified mixture meets the requirements of ASTM D7566 (the certificate of analysis reference number demonstrating conformance with such standard is _____, dated _____);

(B) The mixture was produced by Claimant in the United States;

(C) The mixture was used by Claimant (or sold by Claimant) for use in an aircraft;

(D) Such sale or use was in the ordinary course of the trade or business of the Claimant;

(E) The transfer of such mixture to the fuel tank of such aircraft occurred in the United States.

3. Claimant is registered under activity letter M or S or both with registration number(s) _____. Claimant's registration has not been suspended or revoked by the Internal Revenue Service.

Under penalties of perjury, I, _____ declare that I have examined this declaration, and to the best of my knowledge and belief, it is true, correct, and complete.

_____

Printed or typed name of person signing this declaration

_____

Title of person signing

_____

Signature and date signed

Appendix B – Model Certificate for SAF Synthetic Blending Component

CERTIFICATE FOR SAF SYNTHETIC BLENDING COMPONENT

Certificate Identification Number: _____

(To support a claim related to sustainable aviation fuel (SAF)
under the Internal Revenue Code)

The undersigned producer or importer of a SAF synthetic blending component ("Producer") hereby certifies the following under penalties of perjury:

1. _____

   _____

   _____

   Producer's name, address, and employer identification number (EIN)

2. _____

   _____

   _____

   Name, address, and EIN of person buying the SAF synthetic blending component from Producer.

3. _____

   _____

   _____

   Name and address of the unrelated party certifying compliance with the general requirements, supply chain traceability requirements, and information transmission requirements established under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) or similar requirements for methodologies established under section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)).

4. _____

   Date and location of sale to buyer

5. This certificate applies to _____ gallons of a SAF synthetic blending component.

6. Producer certifies that the SAF synthetic blending component to which this certificate relates:

   (A) Meets the requirements of an ASTM D7566 Annex (the certificate of analysis reference number demonstrating conformance with such standard is _____, dated _____);

   (B) Is not derived from co-processing an applicable material (monoglycerides, diglycerides, triglycerides, free fatty acids, or fatty acid esters) or materials derived from an applicable material with a feedstock that is not biomass (as defined in section 45K(c)(3));

   (C) Is not derived from palm fatty acid distillates or petroleum; and

   (D) Has been certified in accordance with section 40B(e) as having a lifecycle greenhouse gas emissions reduction percentage of at least 50 percent.

7. The lifecycle greenhouse gas emissions reduction percentage of the SAF synthetic blending component to which this certificate relates is _____. (This percent must be rounded down to the nearest whole percent.)

   (Check one)

   _____ The lifecycle greenhouse gas emissions reduction percentage is calculated from the “Default Life Cycle Emissions Values for CORSIA Eligible Fuels” in the most recently published version by the International Civil Aviation Organization (ICAO).

   _____ The lifecycle greenhouse gas emissions reduction percentage is calculated from the “CORSIA Methodology for Calculating Actual Life Cycle Emission Values” in the most recently published version by the ICAO.

   _____ The lifecycle greenhouse gas emissions reduction percentage is calculated according to a methodology that satisfies the criteria of section 211(o)(1)(H) of the Clean Air Act (42 U.S.C. 7545(o)(1)(H)). Describe method: _____

   _____

   _____

8. The applicable supplementary amount with respect to the SAF synthetic blending component to which this certificate relates is _____. In no event can the applicable supplementary amount exceed $0.50.

9. This certificate applies to the following sale:

_____ Invoice or delivery ticket number

_____ Total number of gallons of the SAF synthetic blending component sold under that invoice or delivery ticket number (including SAF synthetic blending component not covered by this certificate)

_____ Total number of certificates issued for that invoice or delivery ticket number

10. _____

_____

_____

Name, address, and EIN of reseller to whom certificate is issued (only in the case of certificates reissued to a reseller after the return of the original certificate)

11. _____ Original Certificate Identification Number (only in the case of certificates reissued to a reseller after return of the original certificate)

12. Producer is registered as a sustainable aviation fuel (activity letter SA) producer or importer with registration number _____. Producer's registration has not been suspended or revoked by the Internal Revenue Service.

Producer understands that the fraudulent use of this certificate may subject Producer and all parties making any fraudulent use of this certificate to a fine or imprisonment, or both, together with the costs of prosecution.

_____

Printed or typed name of person signing this certificate

_____

Title of person signing

_____

Signature and date signed

Note: In the case of a claimant that is also the producer or importer of the SAF synthetic blending component, the information required on lines 2, 4, and 10 of the model certificate is not applicable and those lines do not need to be completed.

Appendix C – Model Statement of SAF Synthetic Blending Component Reseller

STATEMENT OF SAF SYNTHETIC BLENDING COMPONENT RESELLER

(To support a claim related to sustainable aviation fuel (SAF)
under the Internal Revenue Code)

The undersigned SAF synthetic blending component reseller ("Reseller") hereby certifies the following under penalties of perjury:

1. _____

   _____

   _____

   Reseller's name, address, and employer identification number (EIN)

2. _____

   _____

   _____

   Name, address, and EIN of Reseller's buyer

3. _____

   Date and location of sale to buyer

4. _____Volume of the SAF synthetic blending component sold

5. _____Certificate Identification Number on the Certificate for SAF Synthetic Blending Component

Reseller has bought the SAF synthetic blending component described in the accompanying Certificate for SAF Synthetic Blending Component and reseller has no reason to believe that any information in the certificate is false.

Reseller has not been notified by the Internal Revenue Service that its right to provide a certificate and a statement has been withdrawn.

Reseller understands that the fraudulent use of this statement may subject Reseller and all parties making any fraudulent use of this statement to a fine or imprisonment, or both, together with the costs of prosecution.

_____

Printed or typed name of person signing this certificate

_____

Title of person signing

_____

Signature and date signed