Part III - Administrative, Procedural, and Miscellaneous

Beginning of Construction for the Credit for Carbon Oxide Sequestration under Section 45Q

Notice 2020-12

SECTION 1. PURPOSE

On October 3, 2008, section 115 of the Energy Improvement and Extension Act of 2008, Pub. L. 110-343, Div. B, Title I, 122 Stat. 3765, 3829, enacted the credit for the sequestration of carbon dioxide under § 45Q of the Internal Revenue Code (Code). Section 45Q was amended by section 1131 of the American Recovery and Reinvestment Tax Act of 2009, Pub. L. 111-5, Div. B, Title I, 123 Stat 115, 325 (February 17, 2009) and, more recently, by section 41119 of the Bipartisan Budget Act of 2018 (BBA), Pub. L. 115-123, Div. D, Title II, 132 Stat. 64, 162 (February 9, 2018).

As a result of the modifications made by the BBA amendment, the credit under § 45Q now applies to the sequestration of “qualified carbon oxide,” a broader term than the qualified carbon dioxide that was previously the subject of the credit. Further, § 45Q now provides that construction of a qualified facility that includes carbon capture equipment must begin before January 1, 2024. This amendment became effective for

taxable years beginning after December 31, 2017.

On May 20, 2019, the Department of Treasury (Treasury) and the Internal Revenue Service (IRS) published Notice 2019-32, 2019-21 I.R.B. 1187, requesting comments on issues concerning the credit for carbon oxide sequestration under § 45Q (Section 45Q Credit). In response to that notice, many commenters requested guidance regarding the beginning of construction requirement for the Section 45Q Credit. This notice provides guidance on the determination of when construction has begun on a qualified facility or on carbon capture equipment that may be eligible for the Section 45Q Credit. This notice provides two methods for taxpayers to establish the beginning of construction requirement (Physical Work Test and Five Percent Safe Harbor), a Continuity Requirement for both methods, guidance on transfers of ownership of a qualified facility, and additional guidance applicable to the beginning of construction requirement.

The IRS will not issue private letter rulings or determination letters to taxpayers regarding the application of this notice or the beginning of construction requirement of § 45Q.

SECTION 2. BACKGROUND

Section 45Q(a)(1) allows a credit of $20 per metric ton of qualified carbon oxide (i) captured by the taxpayer using carbon capture equipment which is originally placed in service at a qualified facility before the date of the enactment of BBA, (ii) disposed of by the taxpayer in secure geological storage, and (iii) neither used by the taxpayer as a

tertiary injectant in a qualified enhanced oil or natural gas recovery project nor utilized in a manner described in § 45Q(f)(5).

Section 45Q(a)(2) allows a credit of $10 per metric ton of qualified carbon oxide (i) captured by the taxpayer using carbon capture equipment which is originally placed in service at a qualified facility before the date of the enactment of BBA and (ii) either (I) used by the taxpayer as a tertiary injectant in a qualified enhanced oil or natural gas recovery project and disposed of by the taxpayer in secure geological storage, or (II) utilized by the taxpayer in a manner described in § 45Q(f)(5).

Section 45Q(a)(3) allows a credit of the applicable dollar amount (as determined under § 45Q(b)(1)) per metric ton of qualified carbon oxide (i) captured by the taxpayer using carbon capture equipment which is originally placed in service at a qualified facility on or after the date of the enactment of BBA during the 12-year period beginning on the date the equipment was originally placed in service, (ii) disposed of by the taxpayer in secure geological storage, and (iii) neither used as a tertiary injectant in a qualified enhanced oil or natural gas recovery project nor utilized in a manner described in § 45Q(f)(5).

Section 45Q(a)(4) allows a credit of the applicable dollar amount (as determined under § 45Q(b)(1)) per metric ton of qualified carbon oxide (i) captured by the taxpayer using carbon capture equipment which is originally placed in service at a qualified facility on or after the date of the enactment of BBA, during the 12-year period beginning on the date the equipment was originally placed in service, and (ii) either (I) used by the

taxpayer as a tertiary injectant in a qualified enhanced oil or natural gas recovery project and disposed of by the taxpayer in secure geological storage, or (II) utilized by the taxpayer in a manner described in § 45Q(f)(5).

Section 45Q(d) sets forth the definition of a qualified facility as well as beginning of construction deadlines and the volume of qualified carbon oxide that must be captured. Pursuant to § 45Q(h), the Secretary of the Treasury or his delegate may prescribe such regulations and other guidance as may be necessary or appropriate to carry out § 45Q, including regulations or other guidance to determine whether a facility satisfies the beginning of construction requirements under § 45Q(d)(1) during such taxable year.

SECTION 3. DEFINITIONS

.01 Qualified Carbon Oxide.

(1) Section 45Q(c)(1) defines "qualified carbon oxide" as—

(a) any carbon dioxide that is captured from an industrial source by carbon capture equipment that is originally placed in service before the date of the enactment of the BBA, would otherwise be released into the atmosphere as an industrial emission of greenhouse gas or lead to such release, and is measured at the source of capture and verified at the point of disposal, injection, or utilization,

(b) any carbon dioxide or other carbon oxide that is captured from an industrial source by carbon capture equipment that is originally placed in service on or after the date of the enactment of the BBA, would otherwise be released into the atmosphere as an industrial emission of greenhouse gas or lead to such release, and is measured at

the source of capture and verified at the point of disposal, injection, or utilization, or

(c) in the case of a direct air capture facility, any carbon dioxide that is captured directly from the ambient air, and is measured at the source of capture and verified at the point of disposal, injection, or utilization.

(2) Section 45Q(c)(2) provides that the term “qualified carbon oxide” includes the initial deposit of captured carbon oxide used as a tertiary injectant but does not include carbon oxide that is recaptured, recycled, and re-injected as part of the enhanced oil and natural gas recovery process.

.02 Qualified Facility. Section 45Q(d) provides that the term “qualified facility" means any industrial facility or direct air capture facility—

(1) the construction of which begins before January 1, 2024, and

(a) construction of carbon capture equipment begins before such date, or

(b) the original planning and design for such facility includes installation of carbon capture equipment, and

(2) which captures—

(a) in the case of a facility which emits not more than 500,000 metric tons of carbon oxide into the atmosphere during the taxable year (Section 45Q(d)(2)(A) Facility), not less than 25,000 metric tons of qualified carbon oxide during the taxable year which is utilized in a manner described in § 45Q(f)(5),

(b) in the case of an electricity generating facility which is not a § 45Q(d)(2)(A) facility (Section 45Q(d)(2)(B) Facility), not less than 500,000 metric tons of qualified

carbon oxide during the taxable year, or

(c) in the case of a direct air capture facility or any facility which is not a Section 45Q(d)(2)(A) Facility or a Section 45Q(d)(2)(B) Facility, not less than 100,000 metric tons of qualified carbon oxide during the taxable year.

.03 Industrial Facility. An industrial facility is a facility that produces a carbon oxide stream from a fuel combustion source, a manufacturing process, or a fugitive carbon oxide-emission source that, absent capture and disposal or utilization, would otherwise be released into the atmosphere as industrial emission of greenhouse gas or lead to such release. An industrial facility does not include a facility that produces carbon dioxide through carbon dioxide production wells from natural carbon dioxide-bearing formations.

.04 Direct Air Capture Facility. Section 45Q(e)(1) provides that the term “direct air capture facility” means any facility that uses carbon capture equipment to capture carbon dioxide directly from the ambient air. A direct air capture facility does not include any facility that captures carbon dioxide that is deliberately released from naturally occurring subsurface springs or using natural photosynthesis.

.05 Carbon Capture Equipment. Carbon capture equipment includes all components of property that are used to capture or process (for example, separation, purification, drying, and/or compression) carbon oxide until it is transported away from the qualified facility for disposal, utilization, or use as a tertiary injectant. For these purposes, carbon capture equipment includes a system of gathering lines that collect carbon oxide

captured from a qualified facility or multiple qualified facilities that constitute a single project (as described in section 8.01 of this notice) for the purpose of transporting that carbon oxide away from the qualified facility or single project to a pipeline used to transport carbon oxide from multiple taxpayers and projects.

SECTION 4. METHODS FOR ESTABLISHING BEGINNING OF CONSTRUCTION

.01 In general. This notice provides two methods for a taxpayer to establish that construction of a qualified facility or carbon capture equipment has begun for purposes of the Section 45Q Credit. A taxpayer may establish the beginning of construction by starting physical work of a significant nature as set forth in section 5 of this notice (Physical Work Test). A taxpayer may also establish the beginning of construction by meeting a safe harbor based on having paid or incurred five percent or more of the total cost of the qualified facility or carbon capture equipment as set forth in section 6 of this notice (Five Percent Safe Harbor).

Both methods require that a taxpayer make continuous progress towards completion once construction has begun (Continuity Requirement). Section 7 of this notice discusses the Continuity Requirement and provides a safe harbor for satisfying this requirement (Continuity Safe Harbor).

.02 Combination of methods. Although a taxpayer may satisfy both methods of establishing the beginning of construction, construction will be deemed to have begun on the date the taxpayer first satisfies one of the two methods. For example, if a taxpayer performs physical work of a significant nature on a qualified facility or carbon

capture equipment in 2020, and then pays or incurs five percent or more of the total cost of the qualified facility or carbon capture equipment in 2021, construction will be deemed to begin in 2020 under the Physical Work Test, not in 2021 under the Five Percent Safe Harbor. Thus, the Continuity Safe Harbor will be applied beginning in 2020, not in 2021.

For this purpose, a taxpayer that fails to satisfy the Five Percent Safe Harbor in one year due to cost overruns (see section 6.03 of this notice) will not be prevented from using the Physical Work test in a later year to establish beginning of construction, provided that occurs before January 1, 2024.

SECTION 5. PHYSICAL WORK TEST

.01 In general. Construction of a qualified facility or carbon capture equipment will be considered as having begun when physical work of a significant nature (as determined under section 5.02 of this notice) begins, provided that the taxpayer maintains a continuous program of construction (as determined under section 7.01 of this notice). Work performed by the taxpayer and work performed for the taxpayer by other persons under a binding written contract that is entered into prior to the manufacture, construction, or production of components of a qualified facility or components of carbon capture equipment is taken into account to determine whether construction has begun. Whether and when a taxpayer has begun construction of a qualified facility or carbon capture equipment will depend on the relevant facts and circumstances.

.02 Physical Work of a Significant Nature. The Physical Work Test requires that a taxpayer begin physical work of a significant nature. This test focuses on the nature of the work performed, not the amount or the cost. Assuming that physical work performed is of a significant nature, there is no fixed minimum amount of work or monetary or percentage threshold required to satisfy the Physical Work Test. Both off-site and on-site work may be taken into account for purposes of demonstrating that physical work of a significant nature has begun.

(1) Off-Site Physical Work of a Significant Nature. Generally, off-site physical work of a significant nature includes the manufacture of components. Examples illustrating off-site physical work of a significant nature with respect to a qualified facility or carbon capture equipment include, but are not limited to:

(a) the manufacture of mounting equipment and support structures such as racks, skids, and rails;

(b) the manufacture of components necessary for carbon capture processes such as membranes, sorbent vessels, adsorbers, compressors, engines, motors, power generators and regenerators, reboilers, turbines, pressure vessels and other vessels, piping and pipelines, pumps, heat exchangers, solvent pumps, filters, recycling units, electrostatic filtration, water wash equipment, lube oil systems, dehydration systems, glycol contractors, specially designed flue gas ducts, conditioners, cooling towers, absorber units, and other types of gas separation, liquification, or processing equipment;

(c) the manufacture of components necessary for disposal of qualified carbon

oxide in secure geological storage (as described in § 45Q(a)(1)(B) and (a)(3)(B)) such as valves, specialized casing, or other components of a wellhead or well; and

(d) the manufacture of equipment necessary for disposal of qualified carbon oxide in secure geological storage (as described in § 45Q(a)(1)(B) and (a)(3)(B)) such as wellhead equipment, booster compressors, and monitoring equipment for a storage site.

(2) On-Site Physical Work of a Significant Nature. Examples illustrating on-site physical work of a significant nature with respect to a qualified facility or carbon capture equipment include, but are not limited to:

(a) the excavation for and installation of foundations (for the project as well as for buildings to house equipment necessary to the project) including the setting of anchor bolts into the ground and the pouring of the concrete pads of the foundation;

(b) the installation of a system of gathering lines necessary to connect the industrial facility to the carbon capture equipment or other equipment necessary to the qualified facility ***before*** transportation away from the qualified facility for disposal, utilization, or use as a tertiary injectant;

(c) the installation of components necessary for carbon capture processes such as membranes, sorbent vessels, adsorbers, compressors, engines, motors, power generators and regenerators, reboilers, turbines, pressure vessels and other vessels, piping and pipelines, pumps, heat exchangers, solvent pumps, filters, recycling units, electrostatic filtration, water wash equipment, lube oil systems, dehydration systems, glycol contractors, specially designed flue gas ducts, conditioners, cooling towers,

absorber units, and other types of gas separation, liquification, or processing equipment; and

(d) the installation of equipment and other work necessary for the disposal of qualified carbon oxide in secure geological storage (as described in § 45Q(a)(1)(B) and (a)(3)(B)) at the geological storage site, which may be at a different location than the qualified facility or carbon capture equipment.

.03 Preliminary Activities. Physical work of a significant nature does not include preliminary activities, even if the cost of those preliminary activities is properly included in the depreciable basis of the qualified facility or carbon capture equipment. Generally, preliminary activities include, but are not limited to:

(1) securing financing;

(2) exploring;

(3) researching;

(4) obtaining permits and licenses;

(5) conducting test drilling to determine soil condition (including to test the strength of a foundation);

(6) clearing a site;

(7) excavating to change the contour of the land (as distinguished from excavation for a foundation); and

(8) removing existing foundations or any components that are not part of the qualified facility or carbon capture equipment (including those on or attached to building

structures).

.04 Inventory. Physical work of a significant nature does not include work (performed either by the taxpayer or by another person under a binding written contract) to produce components of a qualified facility or carbon capture equipment that are either in existing inventory or are normally held in inventory by a vendor.

SECTION 6. FIVE PERCENT SAFE HARBOR

.01 In general. Construction of a qualified facility or carbon capture equipment will be considered as having begun if:

(1) a taxpayer pays or incurs (within the meaning of § 1.461-1(a)(1) and (2) of the Income Tax Regulations) five percent or more of the total cost of the qualified facility or carbon capture equipment, and

(2) the taxpayer makes continuous efforts to advance towards completion of the qualified facility or carbon capture equipment (as determined under section 7.02 of this notice).

.02 Total Cost of Qualified Facility or Carbon Capture Equipment. All costs properly included in the depreciable basis of a qualified facility or carbon capture equipment are taken into account to determine whether the Five Percent Safe Harbor has been met. Costs associated with Front-End Engineering and Design (FEED) activities or other approaches for front-end planning (e.g., the Front-End Loading (FEL) approach) common to projects of similar scope and complexity may also be considered when determining whether the Five Percent Safe Harbor has been met.

.03 Cost Overruns.

(1) Single Project. If the total cost of a qualified facility or carbon capture equipment that is a single project (as described in section 8.01 of this notice) comprised of multiple qualified facilities or multiple units of carbon capture equipment exceeds its anticipated total cost, so that the amount a taxpayer actually paid or incurred with respect to the single project turns out to be less than five percent of the total cost of the single project at the time it is placed in service, the Five Percent Safe Harbor is not satisfied. However, the Five Percent Safe Harbor will be satisfied and the Section 45Q Credit may be claimed with respect to some, but not all, of the qualified facilities or units of carbon capture equipment comprising the single project as long as the total aggregate cost of those qualified facilities or units of carbon capture equipment that are eligible for the Section 45Q Credit is not more than twenty times greater than the amount the taxpayer paid or incurred.

(a) Example. In 2023, a taxpayer incurs $250,000 in costs to construct Project C, comprised of 5 separate direct air capture facilities that will be operated as a single project (as described in section 8.01 of this notice). The taxpayer anticipates that each direct air capture facility will cost $1,000,000 for a total cost for Project C of $5,000,000. Thereafter, the taxpayer makes continuous efforts to complete Project C. The taxpayer timely places all five of the direct air capture facilities that comprise Project C in service in 2026. At that time, the actual total cost of Project C amounts to $6,000,000, with each direct air capture facility costing $1,200,000. Although the

taxpayer did not pay or incur five percent of the actual total cost of Project C in 2023, the taxpayer will be treated as satisfying the Five Percent Safe Harbor in 2023 with respect to 4 of the direct air capture facilities, as their actual total cost of $4,800,000 is not more than twenty times greater than the $250,000 in costs incurred by the taxpayer. Thus, the taxpayer may claim the Section 45Q Credit based on the amount of carbon oxide captured from 4 of the direct air capture facilities. However, if the taxpayer is able to demonstrate that the Physical Work Test was satisfied with respect to Project C prior to January 1, 2024, the taxpayer may claim the Section 45Q Credit based on the entire Project C.

(2) Single Qualified Facility or Unit of Carbon Capture Equipment. If the total cost of a single qualified facility or unit of carbon capture equipment, which is not part of a single project (as described in section 8.01 of this notice) comprised of multiple qualified facilities or units of carbon capture equipment and which cannot be separated into multiple qualified facilities or units of carbon capture equipment, exceeds its anticipated total cost so that the amount a taxpayer actually paid or incurred with respect to the single qualified facility or unit of carbon capture equipment as of an earlier year is less than five percent of the total cost of the single qualified facility or unit of carbon capture equipment at the time it is placed in service, then the taxpayer will not satisfy the Five Percent Safe Harbor with respect to any portion of the single qualified facility or unit of carbon capture equipment in such earlier year.

(a) Example. In 2023, a taxpayer incurs $250,000 in costs to construct Project

D, a qualified facility. The taxpayer anticipates that the total cost of Project D will be $5,000,000. Thereafter, the taxpayer makes continuous efforts to complete Project D. The taxpayer places Project D in service in a later year. At that time, its actual total cost amounts to $6,000,000. Because Project D is a single qualified facility that is not a single project comprised of multiple qualified facilities, the taxpayer will not satisfy the Five Percent Safe Harbor as of 2023. However, the taxpayer may demonstrate that construction began in 2023 if the requirements of the Physical Work Test are satisfied.

SECTION 7. CONTINUITY REQUIREMENT

.01 Physical Work Test: Continuous Construction Test. A continuous program of construction involves continuing physical work of a significant nature (as described in section 5.02 of this notice). Whether a taxpayer maintains a continuous program of construction to satisfy the Continuity Requirement will be determined by the relevant facts and circumstances.

.02 Five Percent Safe Harbor: Continuous Efforts Test. Whether a taxpayer makes continuous efforts to advance towards completion of a qualified facility or carbon capture equipment to satisfy the Continuity Requirement will be determined by the relevant facts and circumstances. Facts and circumstances indicating continuous efforts to advance towards completion of a qualified facility or carbon capture equipment include, but are not limited to:

(1) paying or incurring additional amounts included in the total cost of the qualified facility or carbon capture equipment;

(2) entering into binding written contracts for the manufacture, construction, or production of components of the qualified facility or components of the carbon capture equipment or for future work to construct the qualified facility or carbon capture equipment;

(3) obtaining necessary permits; and

(4) performing physical work of a significant nature (as described in section 5.02 of this notice).

.03 Excusable Disruptions to Continuous Construction and Continuous Efforts Tests. Certain disruptions in a taxpayer's continuous construction or continuous efforts to complete a qualified facility or carbon capture equipment that are beyond the taxpayer's control will not be considered as indicating that a taxpayer has failed to satisfy the Continuity Requirement. However, these disruptions will not extend the Continuity Safe Harbor Deadline as provided in section 7.05 of this notice. Following is a *non-exclusive* list of construction disruptions that will not be considered as indicating that a taxpayer has failed to satisfy the Continuity Requirement:

(1) delays due to severe weather conditions;

(2) delays due to natural disasters;

(3) delays in obtaining permits or licenses from any federal, state, local, or Indian tribal government;

(4) delays at the written request of a federal, state, local, or Indian tribal government regarding matters of public safety, security, or similar concerns;

(5) interconnection-related delays, such as those relating to the completion of construction on a new carbon dioxide pipeline or necessary upgrades to resolve capacity or congestion issues that may be associated with a project's planned interconnection;

(6) delays in the manufacture of custom components;

(7) delays due to labor stoppages;

(8) delays due to the inability to obtain specialized equipment of limited availability;

(9) delays due to the presence of endangered species;

(10) financing delays; and

(11) delays due to supply shortages.

.04 Timing of Excusable Disruption Determination. In the case of a single project comprised of a single qualified facility or carbon capture equipment, whether an excusable disruption has occurred for purposes of the satisfying the Continuity Requirement must be determined in the calendar year during which the qualified facility or carbon capture equipment is placed in service. In the case of a single project comprised of multiple qualified facilities or units of carbon capture equipment, whether an excusable disruption has occurred for purposes of the beginning of construction requirement of § 45Q must be determined in the calendar year during which the last of multiple qualified facilities or units of carbon capture equipment is placed in service.

.05 Continuity Safe Harbor: Deemed Satisfaction of Continuity Requirement. Except as provided in this section, if a taxpayer places a qualified facility or carbon capture equipment in service by the end of a calendar year that is no more than six

calendar years after the calendar year during which construction of the qualified facility or carbon capture equipment began (Continuity Safe Harbor Deadline), the qualified facility or carbon capture equipment will be considered to satisfy the Continuity Safe Harbor. The excusable disruption rules in section 7.03 of this notice do not extend the Continuity Safe Harbor Deadline. If a qualified facility or carbon capture equipment is not placed in service before the end of the sixth calendar year after the calendar year during which construction of the qualified facility or carbon capture equipment began, whether the qualified facility or carbon capture equipment satisfies the Continuity Requirement under either the Physical Work Test or the Five Percent Safe Harbor will be determined based on the relevant facts and circumstances.

For example, if construction begins on a qualified facility or carbon capture equipment on January 15, 2021, and the qualified facility or carbon capture equipment is placed in service by December 31, 2027, the qualified facility or carbon capture equipment will be considered to satisfy the Continuity Safe Harbor. If the qualified facility or carbon capture equipment is not placed in service before January 1, 2028, whether the Continuity Requirement was satisfied will be determined based on the relevant facts and circumstances.

SECTION 8. OTHER GUIDANCE APPLICABLE TO PHYSICAL WORK TEST AND FIVE PERCENT SAFE HARBOR

.01 Single project. Solely for purposes of determining whether construction of a qualified facility or carbon capture equipment has begun for purposes of the

Section 45Q Credit, multiple qualified facilities or units of carbon capture equipment that are operated as part of a single project (along with any components of property that serve some or all such qualified facilities or units of carbon capture equipment) may be treated as a single qualified facility or unit of carbon capture equipment. Whether multiple qualified facilities or units of carbon capture equipment are operated as part of a single project will depend on the relevant facts and circumstances.

(1) Factors for Single Project Determination. Factors indicating that multiple qualified facilities or units of carbon capture equipment are operated as part of a single project include, but are not limited to:

(a) the qualified facilities or units of carbon capture equipment are owned by a single legal entity;

(b) the qualified facilities or units of carbon capture equipment are constructed in the same general geographic location or on adjacent or contiguous pieces of land;

(c) a single system of gathering lines or a single off-take operation is used to collect and deliver carbon oxide to a transportation pipeline;

(d) carbon oxide captured from the qualified facilities is disposed of, utilized, or used as a tertiary injectant pursuant to a shared contract;

(e) the qualified facilities or units of carbon capture equipment are described in one or more common environmental or other regulatory permits or are required to collectively report their activities;

(f) the qualified facilities or units of carbon capture equipment were constructed

pursuant to a single contract providing FEED or similar services covering the full scope of the single project;

(g) the qualified facilities or units of carbon capture equipment were constructed pursuant to a single master construction contract; and

(h) the construction of the qualified facilities or units of carbon capture equipment was financed pursuant to the same loan agreement.

(2) Example. A taxpayer is developing 5 separate units of carbon capture equipment that will be constructed adjacent to and connected to multiple industrial facilities. These industrial facilities are located within the same general geographic location. All 5 units of carbon capture equipment are described in common environmental and other regulatory permits. Pursuant to a single contract, carbon oxide captured from all 5 units of carbon capture equipment will be transported to a single off-taker that will use that carbon oxide as a tertiary injectant. In 2022, the taxpayer manufactures 1 of the 5 units of carbon capture equipment. Thereafter, the taxpayer completes the construction of all 5 units of carbon capture equipment pursuant to a continuous program of construction and connects them to industrial facilities. The taxpayer may treat the 5 units of carbon capture equipment as a single project (Project E). For purposes of the Section 45Q Credit, the taxpayer has performed physical work of a significant nature that constitutes the beginning of construction of Project E in 2022.

(3) Timing of Single Project Determination. The determination of whether multiple

qualified facilities or units of carbon capture equipment are operated as part of a single project and are therefore treated as a single qualified facility or unit of carbon capture equipment for purposes of the beginning of construction requirement of § 45Q must be determined in the calendar year during which the last of the multiple qualified facilities or units of carbon capture equipment is placed in service.

(4) Disaggregation for Continuity Safe Harbor. Multiple qualified facilities or units of carbon capture equipment that are operated as part of a single project and treated as a single qualified facility or carbon capture equipment under section 8.01 of this notice for purposes of determining whether construction of a qualified facility or carbon capture equipment has begun may be disaggregated and treated as multiple separate qualified facilities or units of carbon capture equipment for purposes of determining whether a separate qualified facility or unit of carbon capture equipment satisfies the Continuity Safe Harbor. Those disaggregated separate qualified facilities or units of carbon capture equipment that are placed in service prior to the Continuity Safe Harbor Deadline will be eligible for the Continuity Safe Harbor. The remaining disaggregated separate qualified facilities or units of carbon capture equipment may satisfy the Continuity Requirement under a facts and circumstances determination.

(5) Example. A taxpayer is developing Project F that will consist of 5 qualified facilities. Carbon oxide captured from Project F will be collected and delivered to a transportation pipeline through a single system of gathering lines and disposed of through a single contract for secure geological storage. Project F will be treated as a

single project under section 8.01 of this notice.

In 2022, the taxpayer performs physical work of a significant nature on Project F that satisfies the Physical Work Test. Thereafter, the taxpayer places in service only 4 of the 5 separate qualified facilities comprising Project F in 2028. The taxpayer disaggregates Project F under section 8.01(4) of this notice; 4 of the 5 separate qualified facilities satisfy the Continuity Safe Harbor. For the remaining qualified facility, the taxpayer may demonstrate that it satisfies the Continuous Construction Test described in section 7.01 of this notice based on the facts and circumstances.

.02 Construction by Contract. For components of qualified facility or carbon capture equipment that are manufactured, constructed, or produced for the taxpayer by another person under a binding written contract (as described in section 8.02(1) of this notice), the work performed and amounts paid or incurred under the contract are taken into account in determining whether the Physical Work Test or Five Percent Safe Harbor Test is met, provided the contract is entered into prior to the work taking place or the amounts paid or incurred.

(1) Binding Written Contract. A written contract is binding only if it is enforceable under local law against the taxpayer or a predecessor and does not limit damages to a specified amount (for example, by use of a liquidated damages provision). For this purpose, a contractual provision that limits damages to an amount equal to at least five percent of the total contract price will not be treated as limiting damages to a specified amount. For additional guidance regarding the definition of a binding written contract,

see § 1.168(k)-1(b)(4)(ii)(A)-(D) of the Income Tax Regulations.

(2) Master Contract. If a taxpayer enters into a binding written contract for a specific number of components of property to be manufactured, constructed, or produced for the taxpayer by another person under a binding written contract (master contract), and then through a new binding written contract (project contract) the taxpayer assigns its rights to certain components of property to an affiliated special purpose vehicle that will own the qualified facility or carbon capture equipment for which such components of property are to be used, work performed or amounts paid or incurred with respect to the master contract may be taken into account in determining whether the Physical Work Test or Five Percent Safe Harbor Test is met with respect to the qualified facility or carbon capture equipment.

.03 Look-through Rule.

(1) Physical Work Test. Both on-site and off-site work (performed either by the taxpayer or by another person under a binding written contract) may be taken into account for purposes of demonstrating that physical work of a significant nature has begun with respect to a qualified facility or carbon capture equipment. For example, in the case of a qualified facility or carbon capture equipment, on-site physical work of a significant nature may begin with the installation of piping and pipelines, including to connect an industrial facility to carbon capture equipment. If the qualified facility or carbon capture equipment's piping and pipelines are to be assembled on-site from components of property manufactured off-site by a person other than the taxpayer and

delivered to the site, physical work of a significant nature begins when the manufacture of the components of the piping and pipelines begin at the off-site location, but only if (i) the manufacturer's work is performed pursuant to a binding written contract and (ii) these components of property are not held in the manufacturer's inventory. If a manufacturer produces components of property for multiple qualified facilities or units of carbon capture equipment, a reasonable method must be used to associate individual components of property with a particular purchaser.

(2) Five Percent Safe Harbor. For a qualified facility or carbon capture equipment or components of a qualified facility or carbon capture equipment that are manufactured, constructed, or produced for the taxpayer by another person under a binding written contract with the taxpayer, amounts paid or incurred with respect to the qualified facility or carbon capture equipment by the other person before the qualified facility or carbon capture equipment is provided to the taxpayer are deemed paid or incurred by the taxpayer when the amounts are paid or incurred by the other person under the principles of § 461 for purposes of the Five Percent Safe Harbor Test.

(a) Example. In 2023, an accrual-method taxpayer, G, enters into a binding written contract with H. Under the contract, G will provide components of carbon capture equipment to H in June 2025. In 2023, G pays J pursuant to a contract for J to provide parts to G (in March 2021) for use in the components of carbon capture equipment. G's employees provide G with services necessary to design and plan for the production of the components of carbon capture equipment in 2023 and with

services to manufacture (assemble) the components of carbon capture equipment in 2022.

G incurs the cost to design and plan for the production of the components of carbon capture equipment in 2023, incurs the costs for the components of carbon capture equipment in March 2024 when J delivers the components of carbon capture equipment to G (even though the components of carbon capture equipment were paid for in 2023), and incurs the costs for G's employees to manufacture the components of carbon capture equipment in 2025. For purposes of determining whether H has satisfied the Five Percent Safe Harbor in 2023, H may only include the costs G incurred for its employees' performance of design and planning activities for the components of carbon capture equipment in 2023. The other costs in this example are treated as incurred by H in 2024 and 2025, and are included in the total cost of the carbon capture equipment.

.04 Retrofitted Qualified Facility or Carbon Capture Equipment.

(1) In general. A qualified facility or carbon capture equipment may qualify as originally placed in service even though it contains some used components of property, provided the fair market value of the used components of property is not more than 20 percent of the qualified facility or carbon capture equipment's total value (the cost of the new components of property plus the value of the used components of property) (80/20 Rule). See Rev. Rul. 94-31, 1994-1 C.B. 16; Notice 2008-60, 2008-2 C.B. 178. In the case of a single project comprised of multiple qualified facilities or units of carbon

capture equipment, the 80/20 Rule is applied to each qualified facility or unit of carbon capture equipment comprising the single project. For purposes of the 80/20 Rule, the cost of a new qualified facility or carbon capture equipment includes all properly capitalized costs of the new qualified facility or carbon capture equipment.

(2) Beginning of Construction. To satisfy the beginning of construction requirement of § 45Q, the Physical Work Test or the Five Percent Safe Harbor is applied only with respect to the work performed on, or amounts paid or incurred for, new components of property used to retrofit used components of property or an existing qualified facility or carbon capture equipment. For the Five Percent Safe Harbor, all costs properly capitalized in the basis of the qualified facility or carbon capture equipment are taken into account.

SECTION 9. TRANSFER OF QUALIFIED FACILITY OR CARBON CAPTURE EQUIPMENT

.01 In general. The definition of a qualified facility provided in § 45Q(d) requires that the construction of the facility begin before January 1, 2024, and either construction of carbon capture equipment begins before such date or the original planning and design for such facility includes installation of carbon capture equipment. There is no statutory requirement that the taxpayer that places the facility in service also be the taxpayer that begins construction of the facility. Thus, except as provided in section 9.03 of this notice, a fully or partially developed facility may be transferred without losing its qualification under the Physical Work Test or the Five Percent Safe Harbor for purposes

of § 45Q.

For example, a taxpayer may acquire a qualified facility or carbon capture equipment (that consists of more than just tangible personal property) from an unrelated developer that had begun construction of the qualified facility or carbon capture equipment prior to January 1, 2024, and thereafter the taxpayer may complete the qualified facility or carbon capture equipment and place it in service. The work performed or amount paid or incurred prior to January 1, 2024, by the unrelated transferor developer may be taken into account for purposes of determining whether the qualified facility or carbon capture equipment satisfies the Physical Work Test or Five Percent Safe Harbor.

(1) Example. In August 2023, a developer acquires a parcel of land on which it intends to build and operate Project K, a qualified facility that will include carbon capture equipment. The developer contributes the land to its wholly-owned limited liability company (LLC), which is disregarded as an entity separate from its owner for federal tax purposes, to hold and develop Project K**.** In November 2023, the developer incurs 5 percent of the total cost of Project K and thereafter maintains continuous efforts to advance towards the completion of Project K. In April 2024, to finance the development of Project K, the developer sells 95 percent of the interests in LLC to a group of investors who are not related to the developer, and the developer does not contribute the sales proceeds to LLC.

Under Rev. Rul. 99-5, 1999-1 C.B. 434, the developer is treated as selling 95 percent of each of the assets of LLC to the investors, and immediately thereafter the

developer and investors are treated as contributing their respective 5 percent and 95 percent interests in those assets to LLC, which is now a partnership and the owner of Project K for federal tax purposes. In October 2026, LLC places Project K in service. Because Project K satisfies the Five Percent Safe Harbor in November 2023 and assuming Project K otherwise satisfies the requirements of the Section 45Q Credit, the LLC is eligible to claim the Section 45Q Credit with respect to Project K.

(2) Example. In 2025, a taxpayer acquires an unfinished qualified facility (that consists of land and components of an industrial facility and components of carbon capture equipment) from an unrelated developer that had begun construction of the qualified facility in 2022, and thereafter the taxpayer completes the development of that qualified facility and places it in service in 2028. The work performed or the amounts paid or incurred by the unrelated developer prior to the taxpayer's acquisition of the qualified facility may be taken into account by the taxpayer for purposes of determining when the qualified facility satisfies the Physical Work Test or the Five Percent Safe Harbor.

.02 Relocation of components of a Qualified Facility or Carbon Capture Equipment by taxpayer. A taxpayer may begin construction of a qualified facility or carbon capture equipment with the intent to develop the qualified facility or carbon capture equipment at a certain site, and thereafter transfer components of the qualified facility or carbon capture equipment to a different site, complete its development, and place it in service. The work performed or amount paid or incurred prior to the site transfer by such a

taxpayer may be taken into account for purposes of determining whether the qualified facility or carbon capture equipment satisfies the Physical Work Test or the Five Percent Safe Harbor.

.03 Transfers of components of a Qualified Facility or Carbon Capture Equipment between unrelated parties.

(1) In general. In the case of a transfer consisting solely of tangible personal property (including contractual rights to such property under a binding written contract) to a transferee not related (within the meaning of § 197(f)(9)(C) and § 1.197-2(h)(6) of the Income Tax Regulations) to the transferor, any work performed or amount paid or incurred by the transferor with respect to such transferred property will not be taken into account with respect to the transferee for purposes of the Physical Work Test or the Five Percent Safe Harbor.

(2) Example. Developer D intends to develop and operate carbon capture equipment at Facility L, an industrial facility owned and operated by a different taxpayer. Prior to January 1, 2024, Developer D pays or incurs $60,000 to have CO_2 compressors that will be used in the capture of carbon oxide manufactured off-site pursuant to a binding written contract. Thereafter Developer D incurs no further development costs and engages in no further development activity with respect to the carbon capture equipment. In January 2024, Developer D sells the CO_2 compressors to Developer E, a party unrelated to Developer D. Developer E is developing and intends to operate carbon capture equipment at Facility M, an industrial facility located on a parcel of land

owned by Developer E. Developer E incorporates the CO_2 compressors acquired from Developer D into the carbon capture equipment to be used at Facility M. In October 2028, Developer E places the carbon capture equipment in service at Facility M. The total cost of the carbon capture equipment at Facility M is $1,000,000.

Amounts paid or incurred by Developer D prior to January 1, 2024, for the CO_2 compressors will not be taken into account for purposes of satisfying the Five Percent Safe Harbor with respect to the carbon capture equipment at Facility M. However, if without regard to the CO_2 compressors, Developer E has otherwise satisfied the Physical Work Test or the Five Percent Safe Harbor with respect to the carbon capture equipment at Facility M, Developer E will be considered to have begun construction on Facility M for purposes of the Section 45Q Credit.

SECTION 10. RELIANCE ON NOTICE 2009-83

Notice 2009-83, 2009-44 I.R.B. 588, which Notice 2011-25, I.R.B. 2011-14 604, modified by removing section 4.07 of Notice 2009-83, provides guidance on determining eligibility for the former credit under § 45Q for carbon dioxide sequestration, the amount of the credit for tax years prior to the BBA amendments to § 45Q, and the rules regarding adequate security measures for secure geological storage of carbon dioxide. Taxpayers may rely on Notice 2009-83, as modified by Notice 2011-25, until additional guidance on those specific issues is provided by the Treasury Department and the IRS.

SECTION 11. EFFECTIVE DATE

The provisions of this notice are effective on March 9, 2020. Taxpayers that began

construction on a qualified facility or carbon capture equipment by satisfying either the Physical Work Test or the Five Percent Safe Harbor Test, or both, before the effective date of this notice, may use the effective date of this notice as the date that construction began on such qualified facility or carbon capture equipment. A taxpayer that began construction on a qualified facility or carbon capture equipment before the effective date of this notice under both the Physical Work Test and the Five Percent Safe Harbor may choose either method (but not both) for the purpose of applying the beginning of construction rules of this notice.

SECTION 12. DRAFTING INFORMATION

The principal author of this notice is Jennifer Bernardini of the Office of Associate Chief Counsel (Passthroughs & Special Industries). For further information regarding this notice contact Ms. Bernardini on (202) 317-6853 (not a toll-free call).