



CARBON CAPTURE COALITION

July 31, 2020

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Room 5203
Internal Revenue Service
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044

Submitted Electronically to Federal eRulemaking Portal: IRS REG-112339-19

Dear Secretary Mnuchin and Commissioner Rettig:

The 80 companies, NGOs and unions that comprise the Carbon Capture Coalition submit the following comments for the agency's consideration regarding the proposed regulations for the credit for carbon oxide sequestration under section 45Q of the Internal Revenue Code, most recently amended by section 41119 of Division D of the Bipartisan Budget Act of 2018 (BBA), Public Law 115-123, 132 Stat. 64, 162, to encourage the deployment of carbon capture, utilization, and storage projects.

For more than two years, Coalition participants have engaged intensively in a collaborative effort to develop consensus recommendations and model guidance to inform and assist U.S. Department of the Treasury and Internal Revenue Service (IRS) officials in their development of regulations and guidance to implement the tax credit. Our previous submissions to Treasury and IRS, as well as our current comments, recommendations, and model guidance, can be found on our website [here](#).

The Coalition offers the following comments on the proposed regulation:

Secure Geologic Storage

Reporting/Accountability

The Coalition commends the agency for affirming the designation of CSA/ANSI ISO 27916:19¹ as an alternative quantification methodology, in addition to Subpart RR of the EPA Greenhouse Gas Reporting Program (GHGRP), to demonstrate secure geologic

¹ CSA/ANSI ISO was adopted by the International Organization for Standardization's (ISO) and endorsed by the American National Standards Institute (ANSI)

storage associated with CO₂-enhanced oil recovery to claim the 45Q tax credit. We are pleased that the agency opted not to relax existing robust monitoring, reporting and verification (MRV) requirements, which would have risked undermining policymaker and public faith in the 45Q program.

In previous comments to the IRS and Treasury, the Coalition outlined principles and guidelines for an ISO-based program to provide for a demonstration of secure geologic storage associated with CO₂-enhanced oil recovery that is equivalent to the existing EPA Subpart RR rule. In those comments, the Coalition recommended specific supplementary transparency and accountability provisions for an ISO-based program to ensure equivalency and underscored the vital importance of such measures in the demonstration and reporting of secure geologic storage to maintain public confidence in the integrity of the 45Q tax credit. The Coalition continues to strongly support requiring public disclosure of relevant documentation by taxpayers relying on this alternative ISO pathway and encourages IRS to explore ways to ensure public disclosure consistent with relevant statutory limitations.

Definitions of qualified independent engineer and geologist

The agency proposes requiring that a qualified and independent engineer or geologist provide third-party verification of the taxpayer's implementation and compliance with CSA/ANSI ISO 27916:19 but does not provide sufficient clarity. The Coalition supports this requirement, with suggested modifications below, to eliminate ambiguity and ensure accountability during an initial transition period, after which a more robust process for formal accreditation of third parties should be developed to increase public and private sector confidence in geologic storage.

The Coalition commends the agency for proposing that the certifying engineer or geologist be independent, something that 26 CFR § 1.43-3(a)(1) does not require, but which is of vital importance to the perceived integrity of the ISO MRV pathway and the ability to ensure a demonstration of secure geologic storage that is equivalent to Subpart RR. However, the proposed regulations provide no standard of independence or certification, nor are any specific qualifications required.

In the near term, the Coalition recommends additional specification of the credentials and accountability of a qualified and independent engineer or geologist. The agency should draw on the precedent of requirements for a petroleum engineer certifying projects under the Section 43 enhanced oil recovery credit. The proposed regulations at § 1.45Q-3(d) require the documentation outlined in the ISO standard be provided to a "qualified independent engineer or geologist" who must then provide certain annual certifications. We believe the following items should be addressed in the final regulations:

1. **Independent.** We recommend that the standard of independence for the qualified engineer or geologist should be the same standard of independence for the "independent third-party" described in § 1.45Q-4(c)(2). As a result, the

certification under § 1.45Q-3(d) would include an affidavit from the qualified engineer or geologist stating that they are independent from the taxpayer, the electing taxpayer, and the credit claimant.

2. **Standard of certification.** We recommend that the qualified independent engineer or geologist make its certification “under penalties of perjury.” This standard of certification is required for petroleum engineers who certify enhanced oil recovery projects under section 43, and we believe the certification required by § 1.45Q-3(d) should be at no lesser standard.
3. **Qualified engineer/qualified geologist.** A person, or team led by such a person, with relevant expertise in areas such as enhanced oil or natural gas recovery projects, secure geologic storage of CO₂, and the requirements of CSA/ANSI 27916:19, and who is licensed as a Professional Engineer or Professional Geologist.

Additionally, after a period of transition, Coalition participants believe that establishing a process for formal accreditation of third parties is essential. At some point in the future, the American National Standards Institute (ANSI) National Accreditation Board (ANAB) may establish a program for accreditation of validating and verifying individuals or bodies (third parties) to review the demonstration for assuring the secure geological storage of CO₂ associated with enhanced oil recovery production pursuant to CSA/ANSI ISO 27916:19. Once ANAB has established an accreditation program, that program could be used by the IRS as the accreditation process for certifying qualified, independent individuals or bodies to review all of the relevant documentation for verifying long-term storage of CO₂ injected into enhanced oil recovery projects under CSA/ANSI ISO 27916:19.

Credit Recapture

The Coalition supports the general lookback period approach adopted in the proposed regulations for credit recapture. This approach helps address the open-ended nature of recapture risk, which has been an important impediment to the incentive provided by section 45Q credits. However, the Coalition believes that a five-year lookback period is longer than is justified by the physical properties of CO₂ storage or than is required to maintain the environmental integrity and achieve the geologic storage purposes of the section 45Q program. Additionally, the requirements of MRV provide confidence to the nature of CO₂ storage because under the conditions specified in an MRV plan, the chance of CO₂ leakage is low and the risk of leakage quantity exceeding credits claimed in a single tax year is exceedingly low. A shorter lookback period would better align taxpayer incentives with congressional intent while still maintaining confidence in the secure geologic storage of CO₂.

In its November 2018 comments, the Coalition premised the development of its recapture recommendations on the scientific and technical aspects of geologic storage at scale and the imperative of providing for the security of that storage. As part of our recommendations to the agency, the Coalition submitted a technical report and

bibliography, written and reviewed by leading experts in subsurface geologic storage of CO₂. The evidence described in the Coalition's technical report demonstrates that shortening the lookback period can be done without materially increasing the risks associated with leakage. The Coalition recommended a lookback to the immediately preceding taxable year to provide a sufficient safeguard for secure geologic storage. The Coalition encourages IRS to reconsider the five-year lookback period in the proposed rule and consider the evidence supporting a shorter lookback period.

This evidence-based support for a shorter lookback period is also justified under existing Executive Orders in effect, including, EO 12866 and EO 13563, which direct among other things, that benefits justify costs, the use of best available techniques to quantify anticipated present and future benefits, and the use of objective scientific and technical information.

Contractual Assurance

The Coalition supports the standards set forth in the proposed regulations regarding the contractual provisions that are necessary to contractually ensure disposal, injection, or use of qualified carbon oxides. However, at least one key gap remains in these rules. The Coalition and other commenters previously requested flexibility in allowing a chain of contractual assurance so that, for example, the taxpayer who owns carbon capture equipment could contract with a person who transports qualified carbon oxide, who in turn could contract with a third person who physically carries out disposal, injection, or utilization. The proposed regulations do not directly address this issue. It would be helpful if final regulations clarified (with an example) that direct contractual privity between the taxpayer to which the credit is attributable and the person who physically disposes, injects, or utilizes the qualified carbon oxide is not required so long as there is a chain of contractual privity.

Section 45Q(f)(3)(B) Election

The Coalition supports the additional flexibility provided in the proposed regulations for taxpayers making a "transfer" election under section 45Q(f)(3)(B). The Coalition recommends that final regulations expressly permit a section 45Q(f)(3)(B) election to be made with respect to any party that is a chain of contractual privity, described above.

The Coalition also requests guidance regarding the interaction of a section 45Q(f)(3)(B) election and the guidance on partnership allocations of section 45Q credits provided in Rev. Proc. 2020-12. The guidance in Rev. Proc. 2020-12, including the safe harbor provided by Section 4 of the Rev. Proc., generally appears to be premised on the ownership of the carbon capture equipment by the partnership that claims the section 45Q credit (referred to as the "Project Company" in the guidance). However, when a section 45Q(f)(3)(B) election is made, the Project Company generally will not be the

owner of the carbon capture equipment. It is not clear how or whether Treasury would expect the guidance in Rev. Proc. 2020-12 to apply in such a situation.

Utilization/Life Cycle Analysis

In its 2019 model guidance submitted to Treasury and IRS, the Coalition recommended a lifecycle analysis for carbon oxide utilization beginning at the point of acquisition of carbon oxides and based on measured performance to provide transparency and reward incremental improvement. Importantly, the Coalition requested Treasury and IRS choose a lifecycle analysis methodology that (1) fits the specific intent of the 45Q law, and (2) is easily generalizable to the wide variety of industrial processes that could claim the 45Q tax credits for carbon oxide utilization, and (3) provides clarity and certainty to project developers and investors.

Use of ISO standard 14044:2006

The Coalition supports the framework for utilization projects introduced in the proposed regulations, including that a lifecycle analysis (“LCA”) must be in writing and either performed or verified by a professionally-licensed third party that uses generally-accepted standard practices of quantifying the greenhouse gas emissions of a product or process and comparing that impact to a baseline. The Coalition supports the use of LCA documentation consistent with ISO standard 14044:2006 (“Environmental management — Life cycle assessment — Requirements and Guidelines”), as well as a statement documenting the qualifications of the third party, for this purpose. The Coalition supports the interpretation of the phrase “displaced” to require an LCA which compares the utilization case to a base case that was likely to occur absent the capture and use of the carbon oxides.

Lifecycle Analysis

Consistent with the statute, the proposed regulations provide that all greenhouse gases are “taken into account” under an LCA, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential according to Table A-1 of 40 CFR Part 98 subpart A. The Final regulations should provide some guidance as to how these emissions of greenhouse gases other than carbon oxides will be taken into account.

Definitions

Definition of “Carbon Capture Equipment”

The Coalition is concerned that the definition of “carbon capture equipment” in the proposed regulations is overly broad and will create confusion. The proposed regulations provide that, in general, carbon capture equipment includes all components

of property that are used to capture or process carbon oxide until the carbon oxide is transported for disposal, injection, or utilization.

This broad definition means that multiple, distinct pieces of equipment that produce a single stream of qualified carbon oxide may all be treated as “carbon capture equipment.” For example, one piece of equipment might separate carbon oxide from other gases, while another piece of equipment might compress the separated carbon oxide, while a third piece of equipment might treat the carbon oxide. This may create confusion because a section 45Q credit generally is attributable to the owner of carbon capture equipment at a qualified facility (for equipment placed in service after February 9, 2018). The proposed regulations do not address the consequences if more than one taxpayer owns distinct pieces of equipment that all produce a single stream of qualified carbon oxide. Is a taxpayer required to own all of the carbon capture equipment that produces a single stream of qualified carbon oxide in order to claim a section 45Q credit, or is the taxpayer only required to own a portion of such equipment? If the latter, does the credit need to be apportioned among different taxpayers that own different portions and, if so, how will the credit be apportioned?

The definition can be further refined to make it clear that the definition applies to equipment that “prevents the carbon oxide from being otherwise released into the atmosphere as an industrial emission of greenhouse gas.” Furthermore, the final regulations should address, through examples or otherwise, the distinction between equipment that is integral to the industrial process that also, as a side effect, produces a stream of carbon oxide emissions and the equipment that is added on to such equipment expressly to capture this stream of emissions. Taxpayers should be permitted to elect to exclude such “dual purpose” property from the definition of carbon capture equipment. This would provide taxpayers with additional flexibility in structuring transactions that comply with the safe harbor provisions of Rev. Proc. 2020-12.

Final regulations should clarify that the section 45Q credits associated with “additional carbon capture equipment” described in section 45Q(b)(2) should be attributable to the taxpayer that owns the additional carbon capture equipment (and not a taxpayer that owns any carbon capture equipment that was placed in service before the date of enactment of the Bipartisan Budget Act of 2018).

Definition of “Commercial Market”

The 45Q statute broadly defines utilization of carbon oxide as “the use of such qualified carbon oxide for any other purpose for which a commercial market exists.” The Coalition supports a broad definition of “commercial markets” based on the ordinary meaning of such term for purposes of section 45Q utilization. If the use of qualified carbon oxide results in a product that is available for purchase by governmental or private sector entities, it should be deemed to constitute use for a purpose for which a commercial market exists. The inclusion of beneficial usage of carbon oxides was an important and deliberate motivation for Congress to enact the new 45Q tax credit. In addition to expanding the volume of greenhouse gases that are geologically stored, Congress

intended the Bipartisan Budget Act of 2018 to serve as an incentive to catalyze uses of carbon oxides in a variety of products and processes including, but not limited to, building materials, fuels, plastics, algae biofuels and bioproducts. Many of these and other types of utilization were considered nascent but valuable to encouraging a lower-carbon economy.

Definition of “Electric Generating Facility”

The proposed regulations contain uncertainty as to how carbon capture equipment installed to capture carbon oxides at a facility that is an industrial combined heat and power plants (CHP) is categorized under 45Q (i.e., whether CHPs are “electric generating facilities” or “industrial facilities”). Though these facilities’ primary purpose is to provide steam and electric power to the industrial facilities at which they are located, as a practical matter, virtually all such CHP facilities are directly or indirectly connected to the grid; and most such CHP facilities sell electricity to the grid from time to time.

The proposed 45Q regulations categorize a facility as an electric generating facility if depreciated under MACRS Asset Classes 49.11, 49.12, 49.13, or 49.15, all of which pertain to “production of electricity for sale,” or “for sale to others.” Concerns arise that routine but *de minimis* sales of electricity to the grid would cause a CHP to be subject to the depreciation under one of these four MACRS classes, thus triggering the 500,000 metric ton category applicable to capture equipment installed at electric generating facilities. Many CHP facilities are small and do not produce 500,000 metric tons of carbon oxide annually, so this categorization could disqualify many otherwise attractive industrial CHP carbon capture projects.

The Coalition requests explicit guidance as to whether a CHP facility, the majority of the carbon oxides emitted from which are attributable to serving the steam and industrial load of the host industrial plant, may be treated as an industrial facility to which the “not less than 100,000 metric tons” of 45Q(d)(2)(C) would apply.

Definition of “Industrial Facility”

The Coalition supports the definition of “industrial facility” and related guidance on manufacturing processes, as included in the proposed regulations.

Other

The Coalition supports the implementation of the 80/20 Rule in the context of section 45Q, as included in the proposed regulations.

With the release of this proposed rule, the accompanying comment period and anticipated final rule, developers and investors now have the remaining critical information they need to continue moving forward on at least 30 publicly announced commercial carbon capture projects already under development nationwide in response

to the revamped 45Q credit. The Coalition looks forward to working with Treasury and the IRS and other federal agencies to ensure the final implementation of the 45Q tax credit.

Thank you for your work and consideration of our comments.

Sincerely,

A handwritten signature in black ink that reads "Brad Crabtree". The signature is written in a cursive, slightly slanted style.

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