



**Industrial
Innovation
Initiative**

a partnership between Great Plains Institute and
World Resources Institute

From: Industrial Innovation Initiative, I³

Contact: Gabrielle Habeeb

Address: 2801 21st Ave, S #220, Minneapolis, MN 55407

Phone: (815) 274-1817

Email: ghabeeb@gpisd.net

Date: December 2, 2022

Re: Request for Comments on the Credit for Carbon Oxide Sequestration (Notice 2022-57)

<https://www.irs.gov/pub/irs-drop/n-22-57.pdf>

Background

The Internal Revenue Service and the Treasury Department have crucial roles to play in advancing the tax provisions needed to support the investments necessary for significantly decarbonizing the industrial sector. We are supportive of the enhancements to the 45Q credit under the Inflation Reduction Act of 2022 and appreciate this opportunity to provide comment. In response to the Request for Comments on the Credit for Carbon Oxide Sequestration, the Industrial Innovation Initiative (I³) has prepared the following document.

About I³

The [Industrial Innovation Initiative \(I³\)](#) is an ambitious coalition that aims to advance solutions key to decarbonizing the industrial sector through policy development and implementation, technology demonstration and adoption, and demand-side market development. The Initiative builds on years of stakeholder engagement and extensive work by its co-conveners, Great Plains Institute and World Resources Institute, to collaborate with government officials and advance decarbonization solutions important to the industrial sector.

I³ values a stable climate, a safe and healthy environment, thriving livelihoods for American workers, and a strong US economy. I³ supports policies that will put American industry on a path to net-zero emissions, retain and create high-wage jobs, and advance technology leadership and economic competitiveness. The Initiative convenes key industry, environmental, labor, and other stakeholders, to advance cross-cutting strategies, policies, and programs for achieving industrial decarbonization by midcentury.

Section 3.02 Definitions.

(2) What clarifications are needed regarding the definition of a qualified facility under § 45Q(d)?

Under 45Q(d), qualified facility is defined as “any industrial facility or direct air capture facility” that complies with the commence construction deadline of January 1, 2033 and meets the annual capture threshold in terms of qualified carbon oxide captured. Within that definition, while “industrial facility” is not defined in statute, it is defined in regulation (section 3.03 of Notice 2020-12¹) as “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 an 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.”

Additional clarity is needed with regard to facilities producing multiple emissions streams from sources that would otherwise independently meet the definition of “qualified facility” under 45Q as different types of qualified facilities with different capture thresholds and credit levels. For example, an industrial facility may contain both an emissions stream from an electricity generation source and an emissions stream from an industrial (non-electricity generation) facility that are both installed within the same fence-line.

As another example, in addition to capturing CO₂ from the ambient air, a direct air capture facility may have associated industrial sources of CO₂ that can be captured by carbon capture equipment and sequestered (e.g., CO₂ emissions from heat production units and electric generating units). There may be multiple sources of qualified carbon oxides within a DAC facility that would independently be qualified facilities under different subparagraphs of Section 45Q(d). Guidance should clarify that a taxpayer claiming § 45Q credits for the capture of carbon oxides at a DAC facility may claim Section 45Q credits with respect to the qualified carbon oxides captured both from the ambient air and from independently qualified industrial sources within the DAC facility, at the “applicable dollar amount” for each source.

More generally, IRS should clarify that in cases where carbon oxides are captured within a qualified facility that consists of multiple facilities that would otherwise independently be qualified facilities under different subparagraphs of Section 45Q(d), credits may be claimed for qualified carbon oxides captured at each facility at the applicable dollar amount for each type of facility as determined under 45Q(b)(1). This guidance would be consistent with the policy of Section 45Q as amended by the IRA, which allows credits for sequestering or utilizing carbon oxides captured at both DAC facilities and industrial facilities, and it would be consistent with the policy for aggregation and disaggregation of facilities under Notice 2020-12 and Treas. Reg. Section 1.45Q-2(g).

As a final example, refineries are producers (and consumers) of hydrogen, with a substantial number containing steam methane reforming plants on site that could, with carbon capture, qualify for the 45V credit for production of clean hydrogen. The fluid catalytic crackers at refiners also produce a stream of CO₂ emissions, to which 45Q credit could be applied. In this case, a refinery with both a steam methane

¹ <https://www.irs.gov/pub/irs-drop/n-20-12.pdf>

reformer and a fluid catalytic cracker, capturing two separate flue streams should qualify for credits from both 45V and 45Q.

Section 3.06 Please provide comments on any other topics related to § 45Q credit that may require guidance.

Clarification is needed related to in situ (subsurface) mineralization's eligibility under the 45Q credit as an option for secure geologic storage.

Currently, the 45Q regulation states that "secure geological storage includes, but is not limited to, storage at deep saline formations, oil and gas reservoirs, and unminable coal seams,"² however, additional guidance from IRS and Treasury could clarify that in situ mineralization, as described by EPA's Class VI regulation³ and in EPA's Greenhouse Gas Reporting Program, subpart RR,⁴ qualifies under 45Q. Given the significant potential for in situ mineralization in the United States, a clarification on this issue could remove barriers for first movers looking to sequester CO₂ through in situ mineralization-based methods.

I³'s coalition of industry stakeholders are here to connect

The information contained within this document represents a small fraction of the collective knowledge and expertise of our participants. Additionally, this document was prepared with the input and feedback of I³ participants but does not reflect the express opinion of each participating organization. Members of I³ are ready and willing to connect with the Treasury and IRS to provide key industry, labor, environmental, and business perspectives from our stakeholder group. The Initiative meets bi-monthly and is happy to schedule ad hoc meetings to facilitate vital discussions such as these. If you would like to connect with us directly, please reach out to I³ Project Manager, Gabrielle Habeeb, at ghabeeb@gpisd.net, and we will gladly arrange a meeting.

² <https://www.law.cornell.edu/cfr/text/26/1.45Q-3>

³ https://www.epa.gov/sites/default/files/2018-01/documents/implementation_manual_508_010318.pdf

⁴ <https://www.epa.gov/ghgreporting/subpart-rr-geologic-sequestration-carbon-dioxide>