

**Letter of Findings: 02-20231320
For the Years 2015, 2016, and 2018**

NOTICE: [IC 6-8.1-3-3.5](#) and [IC 4-22-7-7](#) require the publication of this document in the Indiana Register. This document provides the general public with information about the Department's official position concerning a specific set of facts and issues. This document is effective on its date of publication and remains in effect until the date it is superseded or deleted by the publication of another document in the Indiana Register. The "Holding" section of this document is provided for the convenience of the reader and is not part of the analysis contained in this Letter of Findings.

HOLDING

The Department disagreed with Ethanol Producer that it was entitled to claim research expenses stemming from the purchase of grain used as a component in fuel production. The grain and additives were purchased after commercial ethanol production began, and the grain was a constituent of the Ethanol Producer's products sold to its customers.

ISSUE

I. Corporate Income Tax - Qualified Research Expense Projects.

Authority: [IC 6-3.1-4-1](#); [IC 6-8.1-5-1](#); [IC 6-8.1-5-4](#); I.R.C. § 41; I.R.C. § 174; Treas. Reg. § 1.41-4; *IDOPCO, Inc. v. Comm'r*, 503 U.S. 79 (1992); *New Colonial Ice Co. v. Helvering*, 292 US. 435 (1934); *Little Sandy Coal Company, Inc. v. Commissioner of Internal Revenue*, 62 F.4th 287 (7th Cir. 2023); *VHC, Inc. v. Comm'r*, 968 F.3d 839 (7th Cir. 2020); *Stinson Estate v. United States*, 214 F.3d 846 (7th Cir. 2000); *Union Carbide Corp. and Subsidiaries v. C.I.R.*, 697 F.3d 104 (F.3d 2012); *United States v. McFerrin*, 570 F.3d 672 (5th Cir. 2009); *United Stationers, Inc. v. United States*, 163 F.3d 440, (7th Cir. 1998); *Conklin v. Town of Cambridge City*, 58 Ind. 130 (1877); *Lafayette Square Amoco, Inc. v. Indiana Dep't of State Revenue*, 867 N.E.2d 289 (Ind. Tax Ct. 2007); *Jefferson Smurfit Corp. v. Indiana Dep't of State Revenue*, 681 N.E.2d 806 (Ind. Tax Ct. 1997); *Indiana Dep't. of State Revenue, Sales Tax Division v. RCA Corp.*, 310 N.E.2d 96 (Ind. Ct. App. 1974); *Audit Techniques Guide: Credit for Increasing Research Activities* (June 2005), <https://www.irs.gov/businesses/audit-techniques-guide-credit-for-increasing-research-activities-i-e-research-tax-credit-irc-41-qualified-research-activities>.

Taxpayer argues that the Department made a mistake when it disallowed research expenses claimed on its Indiana corporate income tax returns.

STATEMENT OF FACTS

Taxpayer is a company in the business of converting dried grain into ethanol and selling the ethanol to its customers. It is organized as a limited liability company which elected to file income tax returns as a partnership.

The Indiana Department of Revenue ("Department") conducted an audit of Taxpayer's income tax returns. In doing so, the audit necessarily considered the nature of Taxpayer's ethanol process which was the source of credits claimed on those tax returns.

Taxpayer maintained that it conducted qualified research activities ("QREs") entitling it to claim Indiana research expense tax credits ("RECs" or "REC"). On Taxpayer's 2015, 2016, and 2018 Indiana returns, Taxpayer reported that it incurred approximately \$109,000,000 in QREs entitling it to claim approximately \$6,350,000 in RECs.

The Department's audit review disallowed the expenses and credits. The audit report concluded that "[a]udit adjustments reduce to zero reported Indiana Research Expenses and Indiana Research credits for the years 2015, 2016, and 2018."

The decision to disallow the credits resulted in an assessment of additional Indiana corporate income tax. Taxpayer disagreed with the analysis and conclusions within the audit report and the resultant proposed assessment so submitted a protest to that effect.

An administrative hearing was conducted in order to allow Taxpayer's representatives an opportunity to explain

the basis for its protest. This Letter of Findings results.

I. Corporate Income Tax - Qualified Research Expense Projects.

DISCUSSION

The issue is whether Taxpayer has established that it conducted qualifying research activities during the years at issue and whether it can document that it spent approximately \$109,000,000 in doing so.

A. Department's Audit Examination.

1. Qualifying Research Projects.

As discussed, during the years 2015, 2016 and 2018, Taxpayer claimed approximately \$109,000,000 in QREs entitling it to approximately \$6,350,000 in RECs. These "qualifying expenses" stemmed largely from the cost of supplies consumed during Taxpayer's purported experimental activities. Of the \$109,000,000 in expenses claimed, supply costs - grains and additives - constituted approximately 96 percent of the QREs claimed.

The Department's audit concluded that the company's activities did not "overcome the 4-part test" required under I.R.C. § 41(d) which defines "qualified research" as research:

1. With respect to which expenditures may be treated as expenses under section 174[;]
2. Which is undertaken for the purposes of *discovering information* and which is technological in nature [also known as the Discovery Test];
3. The application of which is intended to be useful in the development of a *new or improved business component* of the taxpayer; and
4. Substantially all of the activities which constitute elements of a process of experimentation for a [qualifying purpose]. (*Emphasis added*).

I.R.C. § 41(d) sets out this four-pronged test necessary to establish qualified research activities. Specifically, the research must first qualify as a business deduction under I.R.C. § 174. I.R.C. § 41(d)(1)(A). Second, the research must be undertaken to discover information "which is technological in nature." I.R.C. § 41(d)(1)(B)(i). Third, the taxpayer must intend to use the information to develop a new or improved business component. I.R.C. § 41(d)(1)(B)(ii). Finally, the taxpayer must pursue a "process of experimentation" during substantially all of the research. I.R.C. § 41(d)(1)(C).

In addition to meeting the four-pronged test requirements, the activities cited by the claimant may not be activities excluded under I.R.C. § 41(d)(4). In other words, QREs may not be claimed for activities "after the beginning of commercial production of the business components" which, in this case, is ethanol production.

The QREs at issue cross over the period in which the Department recognized the transition from the "Discovery Test" to the less restrictive "Uncertainty Test." As explained in the audit report:

Regulations contained in Treasury Decision 8930 (TD8930) are the regulations in effect on January 1, 2001. These regulations were promulgated and published as proposed regulations on December 2, 1998, and were published as final regulations in December 2000, with an effective date of January 3, 2001. Current regulations defining qualified research are contained in Treasury Decision (TD9104) which were promulgated and published as proposed regulations on December 26, 2001, and published as final regulations in December 2003, with an effective date of January 2, 2004. Regulations contained in Treasury Decision 9104 (TD9104) although effective for federal purposes in December 2001, are not effective for Indiana purposes until January 1, 2016.

The audit report explains the manner in which the "Uncertainty" and "Discovery" standards were implemented and applied.

For years 2012-2015 Treas. Reg. 1.41-4 is applied using the requirement that the information sought must exceed, expand or refine common knowledge of skilled professionals. None of the taxpayer's reported research during 2012-2015 meets this requirement.

For years 2016 and 2018 measuring and testing ethanol requires application of scientific principles. The taxpayer provided two (2) reports which provide analyses of tests during 2018. The two (2) reports were prepared by personnel employed by the suppliers. There is no documentation that the taxpayer conducted

any tests.

While the Department referred to both TD8930 and TD9104 in the course of explaining which federal provisions were in effect during the years in which RECs were claimed, this Letter of Findings will only use the provisions of TD9104 in its evaluation of the REC issue. Under the provisions of TD9104, the Department found that the Taxpayer's activities did not meet the four- part I.R.C. § 41 requirements and crossed over into activities and expenses excluded under I.R.C. § 41(d)(4).

The audit disagreed that Taxpayer's research was conducted in order to address "uncertainty." The Department's audit acknowledged that Taxpayer collaborated with suppliers "to determine which new products to test at its facility." However:

The uncertainty was not due to a lack of information to establish capability or method[s] to improve the formula. The uncertainty was only whether the supplier's product would make a difference in the product. The taxpayer did not report activities to investigate a methodology to improve the performance of the ethanol formula.

....

The taxpayer failed to identify an uncertainty that is resolved through a process of experimentation to discover information to improve the business component.

The Department found that Taxpayer's activities did not lead to the discovery of information which was "technological in nature." I.R.C. § 41(d)(1)(B)(i). For 2015 and years prior, the audit found that "none of the [T]axpayer's reported research during 2012- 2015" met the requirement that the information sought "must exceed, expand, or refine common knowledge of skilled professionals."

The audit accepted the principle that "measuring and testing ethanol require[d] the application of scientific principles." The audit acknowledged that Taxpayer provided two technical reports "which provide analyses of tests [conducted] during 2018." The Department did not agree that the two reports buttressed Taxpayer's argument that the reports constituted evidence of "testing." Instead, the two reports were prepared by "personnel employed by [Taxpayer's] suppliers." The audit concluded, "There is no documentation that [T]axpayer conducted any tests."

The Department found that Taxpayer failed to "describe processes of experimentation for the improvement of the business component that is the object of reported research activities" as required under Treas. Reg. 1.41-4(a)(5). The regulation required that "[T]axpayer identify one or more alternatives intended to eliminate an uncertainty and to conduct a process of evaluation the alternatives."

B. Taxpayer's Arguments.

In support of its arguments, Taxpayer presented a detailed description of its iterative, evaluative process, how that process constituted qualifying research activities, and the basis on which it determined that it spent \$109,000,000 in supply costs incurred during its qualifying research activities.

Taxpayer states that it had engaged a third-party consultant described as a "qualified professional accounting firm with expertise in the research tax credit arena." With the assistance and guidance of the consultant, Taxpayer concluded as follows:

All of the supply QREs were used in the development of new ethanol formulas that were intended to be more chemically and biologically efficient and/or more reliable than the existing formula used [by Taxpayer].

According to Taxpayer, its research activities were intended to resolve a specific level of "uncertainty." "Taxpayer was uncertain if the introduction of an experimental trial into its formula would result in increased ethanol yield without increasing raw inputs such as corn."

In order to meet the specialized requirements of each of its customers, "[T]he Taxpayer [was required to] engage in an evaluative trial and error process to analyze and determine the outcome of each trial."

The goal of each "trial" was to determine the "specific mixture of ingredients and variables used in the ethanol production formula" in order to create "new and improved formula for producing ethanol and other by-products."

Taxpayer pointed out that it had provided the audit with "contemporaneous documentation" that "clearly identified

the Taxpayer's trial methodology, the data the Taxpayer's engineering and science teams with respect to the trial carried out, and the Taxpayer's analysis thereof." Taxpayer explained that this documentation "outlines the data recorded with respect to each trial." Moreover, "[T]he analysis and graphs contained within each document provide examples of different iterations of the formula being tested at the facility."

Taxpayer argued that the documentation "detailed discussion of the Taxpayer's activities, including relevant background, an ethanol production process overview, an overview of the R&D conducted by the Taxpayer, and an overview of the R&D credit study performed."

C. Burden of Proof / Assessments and Credits.

Tax assessments are *prima facie* evidence that the Department's assessment of tax is presumed correct. Because the Department issued Taxpayer proposed assessments, the taxpayer bears the burden of proving that the assessment is incorrect. [IC 6-8.1-5-1\(c\)](#); *Lafayette Square Amoco, Inc. v. Indiana Dep't of State Revenue*, 867 N.E.2d 289, 292 (Ind. Tax Ct. 2007).

[IC 6-3.1-4-1](#) provides that, "'Research expense tax credit' means a credit provided under this chapter against any tax otherwise due and payable under [IC 6-3](#)." Similar to deductions, exemptions, and exclusions, tax credits - such as RECs - "are matters of legislative grace." *Stinson Estate v. United States*, 214 F.3d 846, 848 (7th Cir. 2000).

"Tax credits are a matter of legislative grace, are only allowed as clearly provided for by statute, and are narrowly construed." *United States v. McFerrin*, 570 F.3d 672, 675 (5th Cir. 2009) (citing *Stinson*, 214 F.3d at 848 (7th Cir. 2000)); see also *VHC, Inc. v. Comm'r*, 968 F.3d 839, 841 (7th Cir. 2020). "In this case, as with all claimed tax credits, the taxpayer bears the burden of showing entitlement to the credit." *United Stationers, Inc. v. United States*, 163 F.3d 440, 443 (7th Cir. 1998). See also *New Colonial Ice Co. v. Helvering*, 292 US. 435, 440 (1934) ("Whether and to what extent deductions shall be allowed depends upon legislative grace; and only as there is clear provision therefore can any particular deduction be allowed.")

Any taxpayer who claims a tax credit is required to retain records necessary to substantiate a claimed credit. Indiana and federal law require that a taxpayer maintain and produce contemporaneous records sufficient to verify those credits. See Treas. Reg. § 1.41-4(d). (See also [IC 6-8.1-5-4\(a\)](#) which requires that taxpayers *keep* records). Where credit such as a REC is claimed "the party claiming the same must show a case, by sufficient evidence, which is clearly within the exact letter of the law." *Indiana Dep't. of State Revenue, Sales Tax Division v. RCA Corp.*, 310 N.E.2d 96, 100-01 (Ind. Ct. App. 1974) (citing *Conklin v. Town of Cambridge City*, 58 Ind. 130, 133 (1877)).

Indiana case law speaks in general to the issue of the standard required to establish one's entitlement to credits such as that sought by Taxpayer. "[A]n income tax deduction is a matter of legislative grace and that the burden of clearly showing the right to the claimed deduction is on the taxpayer." *IDOPCP, Inc. v. Comm'r*, 503 U.S. 79, 84 (1992). Thus, every taxpayer's claim against any tax must be supported by records necessary to substantiate the claimed credits and those records are required to be "kept" and "retained" "before or during the early stages of the research project."

D. Section 174 Business Deduction Test / Excluded Activities and Conclusion

In reviewing Taxpayer's protest, the Department finds that Taxpayer's protest does not meet the credits' most basic requirements. The Department finds that this failure renders questions of uncertainty, discovery, documentation, experimentation, "business component," and ethanol formulation moot.

(1) Supply Costs.

The audit report describes the issue central to Taxpayer's claim. That issue is illustrated by a notation in the audit report which indicates that during the year 2018, "[R]aw material costs employed by the [T]axpayer to calculate trial expenses is 99[percent] of the total Cost of Goods Sold Purchases reported for federal tax reporting."

The [T]axpayer reports Purchases for Cost of Goods Sold as the supply expenses for Indiana Research Expense Credits. Supply costs incurred in the commercial production of ethanol are not qualified research expenses The [T]axpayer reports supply costs for research; however, the costs are actually production costs of ethanol and other products.

Union Carbide Corp. and Subsidiaries v. C.I.R., 697 F.3d 104 (F.3d 2012) is squarely on point. In that case, Union Carbide (UCC) claimed RECs on "products that were in the process of being manufactured for sale and were in fact sold." *Id.* The court summarized the issue and its conclusion as follows.

The issue is whether UCC's costs for the supplies used during these projects that would have been used in the course of UCC's manufacturing process regardless of any research performed qualify as "an amount paid or incurred for supplies used in the conduct of qualified research." We hold that the costs for such supplies are not creditable. *Id.* at 107.

The court held that the credits were intended for the "substantial costs *that it would not otherwise have incurred* to conduct qualified research. Affording a credit for the costs of supplies that the taxpayer would have incurred regardless of any qualified research it was conducting simply creates an unintended windfall." *Id.* at 109. (*emphasis added.*)

The Second Circuit rejected UCC's argument that supply costs incurred during the commercial production of its products qualified for the credit. As here with Taxpayer, "[T]he costs for which [Taxpayer] seeks a research credit are at best, indirect research costs excluded from the definition of [qualified research expenses] under section 1.41- 2(b)(2) [of the Treasury Regulations]."

Taxpayer anticipated this objection and any reliance the Department placed on *Union Carbide*. It explained in detail the goals and aims of developing a specific ethanol formulation designed to meet the specific requirements of a particular customer. For example, Taxpayer explained it sought to develop a "[n]ew ethanol production formula capable of producing higher quality ethanol at a faster rate" Taxpayer attempted to uncover a "production formula with increased fermentation efficiency and increased ethanol production" However, Taxpayer's objection is undercut in the Court of Appeals' decision in *Little Sandy Coal Company, Inc. v. Commissioner of Internal Revenue*, 62 F.4th 287 (7th Cir. 2023) which pointed out as follows:

[D]eductions under section 174 are limited to "expenditures of an investigative nature expended in developing the *concept* of a model or product," as opposed to the construction or manufacture of the product itself. Expenses incurred merely to determine whether a product is built to satisfy a client's desired specifications—without any indication that the expenses were incurred to improve or develop the concept of the product—do not qualify. *Id.* at 298. (Internal citations omitted).

The activities undertaken by Taxpayer are designed to assure that an ethanol batch meets each customer's particular specifications. But, as the court in *Little Sandy* emphasized, the costs of assuring that those specifications are met, "do not qualify." Taxpayer is not developing "concepts," it is, in effect, conducting quality assurance on a product it routinely manufactures.

Taxpayer makes much of the sophistication involved in the production of Taxpayer's ethanol and the diligence exercised in meeting the specific requirements of its customers. However, the diligence and sophistication take place during and after the production of the product sold to its customers. The ethanol produced - even during production attempts to improve its ethanol product - is sold to its customers.

(2) Commercial Production of Ethanol.

I.R.C. § 41(d)(4) provides that QREs may not be claimed for activities "after the beginning of commercial production of the business component" which, in this case, is the ethanol production. The IRS guidelines on this issue are found at *Audit Techniques Guide: Credit for Increasing Research Activities* (June 2005), <https://www.irs.gov/businesses/audit-techniques-guide-credit-for-increasing-research-activities-i-e-research-tax-credit-irc-41-qualified-research-activities>. (last visited November 25, 2023).

I.R.C. § 41(d)(4) states that qualified research does not include any research conducted after the beginning of commercial production. A business component is considered ready for commercial production when it is developed to the point where it is ready for use or meets the basic functional and economic requirements of the taxpayer.

The following activities are deemed to occur *after the commencement* of commercial production:

- Preproduction planning for a finished business component;
- Tooling up for production;
- Trial production runs;
- Troubleshooting involving detecting faults in production equipment or processes;

- Accumulating data relating to production processes; and
- Debugging flaws in a business component.

....

Treas. Reg. § 1.41-4(c)(10), Examples 1 and 2, illustrate the application of the exclusion for research after commercial production.

....

This exclusion applies if the taxpayer's activities relate to adapting an existing business component to a particular customer's requirement or need. This exclusion does not apply merely because a business component is intended for a specific customer. A contractor's adaptation of an existing business component to a taxpayer's particular requirement or need is not qualified research.

(3) Conclusions.

Taxpayer's arguments run aground against the plain words of the federal regulations. RECs may not be claimed for the cost of supplies consumed in the commercial production of ethanol. RECs may not be claimed for a period after which commercial production has begun.

Taxpayer's RECs are predicated on expenses incurred during and after the commercial production of ethanol commenced. The grains and additives claimed as supply expenses are constituent components of the same ethanol sold to its customers. To join with Taxpayer's argument would require the Department to enlarge or restrict the meaning of the federal requirements beyond the plain words of the requirements. An unambiguous statute must be read "to mean what it plainly expresses, and its plain and obvious meaning may not be enlarged or restricted." *Jefferson Smurfit Corp. v. Indiana Dep't of State Revenue*, 681 N.E.2d 806, 811 (Ind. Tax Ct. 1997).

Taxpayer has failed to meet its statutory burden under [IC 6-8.1-5-1\(c\)](#) of establishing that the proposed assessment was wrong and failed to recognize that RECs "are only allowed as clearly provided for by statute, and are narrowly construed." *McFerrin*, 214 F.3d at 848 (7th Cir. 2000).

FINDING

Taxpayer's protest is respectfully denied.

December 19, 2023

Replaces Finding Document at: New

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An [html](#) version of this document.