

**Letter of Findings Number: 01-20150442**  
**Adjusted Gross Income Tax**  
**For Tax Years 2008, 2010, and 2011**

**NOTICE:** IC § 6-8.1-3-3.5 and IC § 4-22-7-7 requires 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 This document is effective on its date of publication and remains in effect until the date it is superseded or deleted by the publication of another document in the Indiana Register.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

Fabricator was properly denied Indiana research tax credits because it failed to provide documentation to substantiate the credit.

### ISSUES

#### **I. Adjusted Gross Income Tax—Research Expense Credits.**

**Authority:** IC § 6-3-1-3.5; IC § 6-3-2-1; IC § 6-3.1-4-1; IC § 6-3.1-4-4; IC § 6-8.1-5-1; IC § 6-8.1-5-4; Dep't of State Revenue v. Caterpillar, Inc., 15 N.E.3d 579 (Ind. 2014); Indiana Dep't of Revenue v. Miller Brewing Co., 975 N.E.2d 800 (Ind. 2012); Indiana Dep't of State Revenue v. Rent-A-Center East, Inc., 963 N.E.2d 463 (Ind. 2012); Scopelite v. Indiana Dep't of Local Gov't Fin., 939 N.E.2d 1138 (Ind. Tax Ct. 2010); Wendt LLP v. Indiana Dep't of State Revenue, 977 N.E.2d 480 (Ind. Tax Ct. 2012); Lafayette Square Amoco, Inc. v. Indiana Dep't of State Revenue, 867 N.E.2d 289 (Ind. Tax Ct. 2007); IDOPCP, Inc. v. Comm'r, 503 U.S. 79 (1992); Indiana Dep't of State Revenue, Sales Tax Division v. RCA Corp., 310 N.E.2d 96 (Ind. Ct. App. 1974); [45 IAC 3.1-1-66](#); [45 IAC 3.1-1-2](#); [45 IAC 3.1-1-7](#); I.R.C. § 41; I.R.C. § 174; I.R.C. § 1366; Treas. Reg. § 1.41-4; Treas. Reg. § 1.174-4; Black's Law Dictionary (9th ed. 2009).

Taxpayer protests the disallowance of claimed research expense credits.

### STATEMENT OF FACTS

Husband and Wife ("Taxpayers") are shareholders of two S-Corporations ("S-Corp A" and "S-Corp B"), both of which are incorporated and operate in Indiana. S-Corp A is "a contractor that provides fabrication and field services" to various industries. Specifically, S-Corp A provides "field services for boiler maintenance and repair for power plants" as well as "structural steel erection . . . industrial piping services and millwright services." Similarly, S-Corp B is "in the business of construction, fabrication, repair and installation of power plant equipment, boilers, and process furnaces." Taxpayers employed a consulting firm (who also served as Taxpayer's representative in this administrative process) to conduct a Research and Development Tax Credit Study ("S-Corp A Study") for both S-Corp A and S-Corp B to determine whether they were eligible to claim certain Indiana research expense tax credits. As a result of the S-Corp A Study, Taxpayers filed amended 2008, 2010, and 2011 income tax returns, each of which claimed the Indiana research and expense credit ("REC"). The amounts of the credits claimed were comprised of what Taxpayers claimed were qualifying employee wages and expenses.

In 2015, the Indiana Department of Revenue ("Department") conducted an audit for both S-Corp A and B for tax years 2008 - 2011. Each audit resulted in the denial of the REC. Taxpayers protested these denials. An administrative hearing ("Hearing") was conducted during which Taxpayers' representatives ("POA") explained the basis for the protest. This Letter of Findings results. While Taxpayers are protesting the imposition of individual income tax, that income flowed through to Taxpayers from S-Corp A and S-Corp B. Therefore, the reasoning and analysis in the audit reports for S-Corp A and S-Corp B are discussed in this Letter of Findings. Additional facts will be provided as necessary.

#### **I. Adjusted Gross Income Tax—Research Expense Credits.**

### DISCUSSION

Indiana imposes an adjusted gross income tax on all residents. IC § 6-3-2-1. A taxpayer's Indiana income is determined by starting with its federal income and making certain adjustments. IC § 6-3-1-3.5. Income from an S corporation flows through to the individual shareholder's personal income and is reported by the shareholders on their personal income tax returns. See I.R.C. § 1366. See also [45 IAC 3.1-1-66](#); [45 IAC 3.1-1-2\(14\)](#); [45 IAC 3.1-1-7\(6\)](#). Simply stated, an S Corporation is "[a] corporation whose income is taxed through its shareholders rather than through the corporation itself." Black's Law Dictionary 394 (9th ed. 2009). Pursuant to IC § 6-3-1-3.5, the Indiana income tax rules piggyback on the federal income tax statutes and regulations. Therefore, the federal rules and case law are generally applicable to determine an individual shareholder's tax liability. Any additional income received by the S-Corp as a profit passes through to the individual shareholders as income. Indiana also provides certain tax credits which a taxpayer may claim to reduce its tax liability. See generally, IC § 6-3.1 and IC § 6-3.5. One of the tax credits available under Indiana tax law is the REC under IC § 6-3.1-4-1 et seq.

As a threshold issue, it is the taxpayer's responsibility to establish that the existing tax assessment is incorrect. As stated in IC § 6-8.1-5-1(c), "The notice of proposed assessment is prima facie evidence that the department's claim for the unpaid tax is valid. The burden of proving that the proposed assessment is wrong rests with the person against whom the proposed assessment is made." *Indiana Dep't of State Revenue v. Rent-A-Center East, Inc.*, 963 N.E.2d 463, 466 (Ind. 2012); *Lafayette Square Amoco, Inc. v. Indiana Dep't of State Revenue*, 867 N.E.2d 289, 292 (Ind. Tax Ct. 2007). Thus, a taxpayer is required to provide documentation explaining and supporting his or her challenge that the Department's position is wrong. Poorly developed and non-cogent arguments are subject to waiver. *Scopelite v. Indiana Dep't of Local Gov't Fin.*, 939 N.E.2d 1138, 1145 (Ind. Tax Ct. 2010); *Wendt LLP v. Indiana Dep't of State Revenue*, 977 N.E.2d 480, 486 n.9 (Ind. Tax Ct. 2012).

"[W]hen [courts] examine a statute that an agency is 'charged with enforcing . . . [courts] defer to an agency's reasonable interpretation of [the] statute even over an equally reasonable interpretation by another party.'" *Dep't of State Revenue v. Caterpillar, Inc.*, 15 N.E.3d 579, 583 (Ind. 2014). Therefore, when the statute is plain and unambiguous there is no need to delve into the legislative history of the statute.

Our settled procedure of statutory construction begins with a determination as to **whether the legislature has spoken clearly and unambiguously on the point in question**. If so, our task is relatively simple: we need not "delve into legislative intent" but must give effect to "the plain and ordinary meaning of the language." *Indiana Dep't of Revenue v. Miller Brewing Co.*, 975 N.E.2d 800,803 (Ind. 2012).

**(Emphasis added)** (Internal citation omitted).

In order to obtain the benefit of the credit, both Indiana and federal law require that a taxpayer maintain and produce contemporaneous records sufficient to verify those credits. "Tax credits are a matter of legislative grace, and taxpayers bear the burden of proving they are entitled to claim tax credits." *IDOPCP, Inc. v. Comm'r*, 503 U.S. 79, 84 (1992). Moreover, where such a credit 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) **(Emphasis added)**.

Under IC § 6-8.1-5-4 "Every person subject to a listed tax must keep books and records so that the department can determine the amount, if any, of the person's liability. . . ." In addition, Treas. Reg. § 1-41-4(d)(1) (2001) states that for taxpayer to receive the research and development tax credit, a taxpayer must:

Prepare[] documentation before or during the early stages of the research project, that describes the principal questions to be answered and the information the taxpayer seeks to obtain to satisfy the requirements of paragraph (a)(3) of this section and retains that documentation on paper or electronically in the manner prescribed in applicable regulations, revenue rulings, revenue procedures, or other appropriate guidance until such time as taxes may no longer be assessed [] for any year in which the taxpayer claims to have qualified research expenditures in connection with the research project; and (2) satisfies section 6001 and the regulations thereunder.

The IRS's Audit Technique Guide, 2005 WL 405783 (June 2005) provides useful guidance in relation to the information necessary to verify research expense credits. The Guide states:

Substantiation and Record Keeping: Under the final regulations, **a taxpayer must retain records in sufficiently usable form and detail to substantiate that the expenditures claimed are eligible for the credit**. See I.R.C. § 6001; Treas. Reg. § 1.6001-1. The taxpayer must clearly establish full compliance with all of the relevant statutory and regulatory requirements. Failure to maintain records in accordance with these rules is a basis for disallowing the credit.

The Service does not have to accept estimates of qualified research expenses if documentation exists to verify the actual amount of such expenses. As set forth above, taxpayers are required to keep records substantiating the amount of any reported, claimed, or affirmatively raised deductions or credits.

The courts will allow the use of an estimation method only where the taxpayer does not have contemporaneous records, and then only as long as the following two conditions are satisfied. First, the taxpayer must establish that it engaged in qualified research activities as defined in section 41(d). And second, the failure to maintain a proper system to capture relevant information cannot be an "inexactitude [] of their own making." Estimation methods are permitted only in cases where the sole issue is the exact amount paid or incurred in the qualified research activity. Accordingly, taxpayers must have factual support for every assumption underlying their estimates to meet their burden of proof. 2005 WL, at \*24. Audit Techniques Guide: Credit for Increasing Research Activities (i.e. Research Tax Credit) IRC § 41 - Substantiation and Recordkeeping, [http://www.irs.gov/Businesses/Audit-Techniques-Guide:-Credit-for-Increasing-Research-Activities-\(i.e.-Research-Tax-Credit\)-IRC-§41](http://www.irs.gov/Businesses/Audit-Techniques-Guide:-Credit-for-Increasing-Research-Activities-(i.e.-Research-Tax-Credit)-IRC-§41) (last visited January 2, 2015) (**Emphasis added**).

Taxpayers protest that the Department erred in denying the REC for the years at issue. As stated above, Indiana follows the federal tax scheme with certain modifications. IC § 6-3-2-1(b); IC § 6-3-1-3.5(b). Indiana also provides certain tax credits which a taxpayer may claim to reduce its tax liability. See generally, IC § 6-3.1 and IC § 6-3.5. One of the tax credits available under Indiana tax law is the REC under IC § 6-3.1-4-1 et seq. The 2003 statute, which was effective until December 31, 2015, and is relevant to the tax years at issue (the "2003 Indiana Statute"), provides:

The provisions of Section 41 of the Internal Revenue Code **as in effect on January 1, 2001, and the regulations promulgated in respect to those provisions and in effect on January 1, 2001**, are applicable to the interpretation and administration by the department of the credit provided by this chapter, including the allocation and pass through of the credit to various taxpayers and the transitional rules for determination of the base period.

IC § 6-3.1-4-4 (2003) (**Emphasis added**).

Further, "qualified research expense" under the 2003 Indiana Statute is "as defined in Section 41(b) of the Internal Revenue Code as **in effect on January 1, 2001**[" IC § 6-3.1-4-1 (2003) (**Emphasis added**). "Qualified research" is defined in the Internal Revenue Code ("IRC") under section 41(d). IRC subsection 41(d) defines qualified research in pertinent part as follows:

(d) Qualified research defined.-For purposes of this section-

(1) In general.-The term "qualified research" means research-

(A) with respect to which expenditures may be treated as expenses under section 174,

(B) which is undertaken for the purpose of discovering information-

(i) which is technological in nature, and-

(ii) the application of which is intended to be useful in the development of a new or improved business component of the taxpayer, and

(C) substantially all of the activities of which constitute elements of a process of experimentation for a purpose described in paragraph (3).

Such term does not include any activity described in paragraph (4).

26 U.S.C. § 41(d)(1).

This provision sets out a four-pronged test for qualified research. First, the research must have qualified as a business deduction under § 174. See id. § 41(d)(1)(A). Second, the research must be undertaken to "discover information which is technological in nature." Id. § 41(d)(1)(B)(i). Third, the taxpayer must intend to use the information to develop a new or improved business component. Id. § 41(d)(1)(B)(ii). Finally, the taxpayer must pursue a "process of experimentation" during substantially all of the research. Id. § 41(d)(1)(C).

During the audit process, Taxpayers provided documentation for two of S-Corp A's projects and the auditor performed a general review of S-Corp B's projects to determine whether Taxpayers were engaged in qualified research. The respective audit reports discussed all of the projects in general after reviewing Taxpayers' documentation. This Letter of Findings will discuss each S-Corp separately and will explain whether the S-Corp qualifies for the credit. Each S-Corp will be analyzed against the four-part test described in IRC § 41. It should be

noted that Taxpayers' projects will be analyzed through the lense of the 2001 federal regulations. All references to federal regulations will be for 2001 unless otherwise stated. In order to qualify for the REC, Taxpayers must meet the four-part test listed above, provide documentation that it meets the test, and provide documentation that the credits earned are directly linked to qualified research.

The Department's audit reports analyzed Taxpayers' documentation under each step of the four-part step under the 2001 federal regulations. Throughout the audit and protest process Taxpayers explained that they qualified for the research and development tax credit and provided documentation for its projects. Overall the Department determined that neither S-Corp engaged in qualified research and development.

### **A. S-Corp A**

The Indiana Qualified Research Expense Credits claimed by Taxpayers are based on thirteen projects performed by S-Corp A, each of which was a metal fabrication project performed in Indiana. The auditor and Taxpayers agreed to review two of these projects for purposes of the audit.

#### **1. Project 2810**

Customer engaged S-Corp A to "fabricate two wet FGD [flue-gas desulfurization] absorber shells that would be utilized to remove sulfur dioxide." The scope of work required S-Corp A to create "shop detail erection drawings, and material nesting." S-Corp A was to include "weld wiring, external absorber stiffeners, truss and internals, shell plates, and the inlet and outlet ducts." S-Corp A worked with a metal, hastelloy, a new type of metal made of stainless steel and alloy. According to Taxpayers, "[t]he chemical properties of [hastelloy] required an evaluation of several welding techniques in order to determine which would achieve the desired results with no distortion or warping. This included experimenting with different welding intervals, gases, and plasma cutting . . . ." Eventually, S-Corp A used "water jet cutting to complete the project." At the Hearing, Taxpayers noted that the welding techniques and equipment developed in this project were used by other vendors after completion of the project.

Once the hastelloy was cut and welded, S-Corp A had to create custom racks to hold the sheets of metal, which were twenty-six feet long by eight feet wide and up to two inches thick. These racks had to be developed to not only hold the large pieces of metal, but ensure the racks would keep the metal in form and not distort it during transport.

Taxpayers provided diagrams and pictures explaining the FGD process that S-Corp A would be working with. Taxpayers also provided a breakdown of wages and supply costs per project, yearly job costing sheets, and copies of invoices related to Project 2810.

#### **2. Project 3079**

Customer engaged S-Corp A to "engineer[] the removal and replacement of two duct elbows and . . . re-work . . . expansion joint fingers on [Customer's] [o]utlet [duct]." The duct "was to be used to transport fuel gas off the scrubbers from the coal power plant. This gas [was] highly corrosive when it came off the scrubbers and as a result the customer wanted to include an alloy liner in the interior of the ductwork . . . ." As Taxpayers explained in their protest letter, "this posed a unique challenge, as the structural supports for the ductwork were internal, making it extremely difficult to put an alloy liner in the interior of the ductwork without compromising the structural integrity of the entire system." S-Corp A found that "a high nickel alloy [] resisted the corrosive effect of the sulfuric acid" most effectively. However, "the problem with the nickel alloy steel was there were no tried and true methods of welding this alloy because of its sensitivity to heat."

To resolve the issues with the nickel alloy, S-Corp A worked with the developer of the material for several months to determine how to best weld the material. During this process, S-Corp A realized that additional research was needed in regards to the "welding equipment, weld filler metals and weld gases." S-Corp A met with "major welding equipment manufacturers" to develop welding equipment that could accommodate the method developed to weld the nickel alloy. Together, S-Corp A and these vendors developed "equipment that would maintain the required parameters to control heat input and wire feed speed." Specifically, the parties developed short arc and pulse arc welding equipment. S-Corp A worked with welding gas manufacturers to create the proper welding gas mixture for the welding processes and equipment developed for the project. Finally, S-Corp A worked with the nickel alloy manufacturer to define "the optimum size of weld wire and develop standards for the wire so it would run through the feeders to the welding machines." Taxpayers provided a video demonstrating the welding technique developed.

S-Corp A also had to "determine the optimal method to attach turning veins into the ductwork and conduct[] vacuum testing of the line in order to ensure proper attachment." Thus, S-Corp A had to not only engineer the replacement duct, but also use flow-modeling to design a re-route of the ducts and test the re-routing. Finally, after evaluating different alternatives to attach the alloy liner, S-Corp A used a technique in which it welded the alloy liner to the duct, similar to wallpapering a wall. At the Hearing, Taxpayers explained that because the materials used were very high cost, this project required significant amounts of pre-planning.

Taxpayers provided the contract and two amendments dictating the terms of the project. Taxpayers also provided a breakdown of wages and supply costs per project, yearly job costing sheets, and copies of invoices related to Project 3079.

During the audit, POA stated that the thirteen projects under review for S-Corp A were similar in the work being performed. Thus, only two of the thirteen projects were reviewed in the audit. These projects will be analyzed under the four part test as well as under the applicable 2001 federal regulations.

1. Part 1-I.R.C. § 174 test.

"The term 'qualified research' means research with respect to which expenditures may be treated as expenses under section 174 . . ." I.R.C. § 41(d)(1)(A). I.R.C. § 174 states:

A taxpayer may treat research or experimental expenditures which were paid or incurred by him during the taxable year in connection with his trade or business as expenses which are not chargeable to a capital account. The expenditure so treated shall be allowed as a deduction.

Treas. Reg. § 1.174-2(a)(1) further defines "research and experimental expenditure,"

The term research or experimental expenditures, as used in section 174, means expenditure incurred in connection with the taxpayer's trade or business which represents research and development costs in the experimental or laboratory sense. The term generally includes all such costs incident to the development or improvement of a product. The term includes the costs of obtaining a patent, such as attorney's fees expended in making and perfecting a patent application. **Expenditures represent research and development costs in the experimental or laboratory sense if they are for activities intended to discover information that would eliminate uncertainty concerning the development or improvement of a product. Uncertainty exists if the information available to the taxpayer does not establish the capability or method for developing or improving the product or the appropriate design of the product.** (Emphasis original) (Emphasis added).

As stated in the audit report, wages of personnel and supplies were claimed as research expenses. In its audit report, the Department noted:

Expenses claimed were determined to be included in the cost of goods sold (COGS) on the original Federal returns for 2008, 2010 and 2011 as filed. When the amended returns were filed to claim the [Research and Development] credit the [T]axpayer made adjustments to the COGS in 2008 and to the "Other deductions" in 2010 to reduce their expenses claimed on the original returns.

. . .

No adjustment was made to the expenses claimed on the 2011 return. Even after the amended returns were filed the majority . . . of the expenses claimed were still shown in the COGS. The [Research and Development] expenditures claimed far exceeds the adjustment made on the amended returns. The [T]axpayer has made no designation in their books that any [Research and Development] expenses were incurred and that all expenses taken were directly charged to jobs being completed by the [T]axpayer.

In their protest letter, Taxpayers argue that the Department "has not pointed to any authoritative guidance which would preclude a Taxpayer from claiming a[] [Research and Development] expense simply because there is no specific type of designation in their books for [Research and Development] expenses." Further, Taxpayers claim that "supplies that were not used to eliminate uncertainty were not captured towards the credit." In fact, Taxpayers state that "only the costs associated with eliminating technical uncertainties attributed to the development of a product were captured toward the credit."

As Taxpayers point out in their protest letter, the uncertainty requirement was clarified by the IRS in 1994 in Treasury Decision 8562. In Treasury Decision 8562 the IRS states that "the requisite uncertainty exists if the information available to the taxpayer does not establish either (i) the capability or method for developing or

improving the product, or (ii) the appropriate design of the product."

According to Taxpayers, S-Corp A's customers gave S-Corp A an idea of what they wanted, but gave little to no guidance as to how that was to be achieved. Therefore, at the outset of each project reviewed, S-Corp A faced several uncertainties in how the given project was to be completed. In project 2810, S-Corp A encountered uncertainty in working with a new type of metal with its own unique chemical properties. It was uncertain whether this metal was capable of being welded without any warping or distortion. S-Corp A tested several different methods of welding before finding one that worked with the material.

In project 3079, S-Corp A encountered significant uncertainty regarding how to install an alloy liner in the interior of ductwork without compromising the structural integrity of the entire system. The duct work system was unique to this particular customer at its particular location, thus while information may have been available in regards to installing alloy liners, information was not available on how to install the liner at this location and under these circumstances. S-Corp A also had to determine which type of alloy would work best at resisting the corrosive effect of the sulfuric acid that would move through the ducts. The alloy that was chosen had "no tried and true methods of welding . . . because of its sensitivity to heat." S-Corp A again faced uncertainty as to whether the material could be welded effectively. While addressing this uncertainty, S-Corp A ran into additional uncertainties regarding the type of welding equipment, filler metals and gases to use. Working with third parties, S-Corp A designed welding equipment that could accommodate the welding method developed. S-Corp A faced uncertainty as to the correct combination of welding gas and size of weld wire. Again, working with third-parties, S-Corp A found the right combination of gas and size of weld wire. Information regarding welding techniques, equipment and components, but this information did not eliminate the uncertainty S-Corp A encountered in working on this particular project.

Taxpayers appear to meet the first of the four parts test under I.R.C. § 41. However, it should be noted that documentation outlining the uncertainties encountered and the processes S-Corp A went through to address these uncertainties was not provided. Thus, while an explanation of the project and its requirements can inform the Department that qualified research was taking place, the lack of documentation may prevent S-Corp A from meeting other parts of the I.R.C. § 41 four-part test.

## 2. Part 2-Discovering Information that is Technological in Nature.

Research qualifies for the REC if it is "undertaken for the purpose of discovering information-- (i) which is technological in nature. . . ." I.R.C. § 41(d)(1)(B). Treas. Reg. § 1.41-4(a)(3)(i) (2001) goes on to explain that research is "undertaken for the purpose of discovering" information only if it is "undertaken to obtain knowledge that exceeds, expands, or refines the common knowledge of skilled professionals in a particular field of science or engineering." This does not require the taxpayer to be successful nor does it require the research to "be more than evolutionary," rather, the research must be taken one step beyond what is commonly available to similarly situated professionals. *Id.* For the purposes of meeting part two of the test, Taxpayer is allowed to employ existing technologies and rely on existing principals. Treas. Reg. § 1.41-4(a)(3)(iii) (2001).

Treas. Reg. § 1.41-4(d)(3)(ii) (2001) defines "common knowledge" of skilled professionals in a particular field of science or engineering "as information that **should be known** to skilled professionals had they performed, before the research in question is undertaken, a reasonable investigation of the existing level of information in the particular field of science or engineering." (**Emphasis added**).

In the audit report, the Department acknowledges that "it does appear that what the [T]axpayer[s] [are] doing is technological in nature, [however,] the auditor is not convinced the [T]axpayer[s] [are] 'discovering information' to develop a new or improved business component." The report explains that Taxpayers are "a contractor that primarily provides fabrication and field services. The customer provides engineering drawings and component specifications as to the work that is being completed . . . ." The audit report concluded that Taxpayers' work was more "trial and error" than "true research" and that "[n]o new business component is being developed or improved."

Research qualifies for the REC if it is performed to discover information that is technological in nature. The Department is correct in that the work performed by Taxpayers is technological in nature. However, the Department's analysis of whether that information "develop[s] a new or improve[s] [an existing] business component" misses the mark. Rather, as stated above, the analysis should be whether the discovery of information is "undertaken to obtain knowledge that exceeds, expands, or refines the common knowledge of skilled professionals in a particular field of science or engineering." Treas. Reg. § 1.41-4(a)(3)(i) (2001). This requires the research to be taken one step beyond what is commonly available to similarly situated professionals.

Id.

During the Hearing, POA made a convincing argument that S-Corp A performed research which took the information previously available one step forward. According to POA, S-Corp A created welding techniques to work effectively with a new type of metal alloy and developed welding techniques, equipment, gases, and wire to effectively complete a project. This type of research takes the information previously available one step forward or beyond. However, S-Corp A did not provide sufficient documentation to support its claim as required under both Indiana and Federal law. During its protest, S-Corp A provided documentation that included breakdowns of employees and how much qualified time a given employee spent on a project. Also provided were calculations of job costs per job number and by vendor. These calculations were accompanied with supporting invoices. Contracts and change orders were provided to show customer's requests and revisions. Documentation was not provided which detailed which employees created particular calculations or drawings or how much time each employee spent on any particular step aspect of the process. Documentation showing the trial and error of creating welding techniques, equipment, gases and wires were not provided.

Due to lack of documentation, Taxpayers do not meet the second of the four parts test under I.R.C. § 41.

### 3. Part 3-Business Component Test.

Research qualifies for the REC if it is "undertaken for the purpose of discovering information-- . . . (ii) the application of which is intended to be useful in the development of a new or improved business component of the taxpayer. . . ." I.R.C. § 41(d)(1)(B). The audit report stated that "[t]he [T]axpayer[s] must intend to apply the information being discovered to develop a new or improved business component." The audit report goes on to define "business component" as "any product, process, computer software, technique, formula, or invention, which is to be held for sale, lease, license, or used in a trade or business of the taxpayer." The Department determined that S-Corp A "does not produce a business component which can be sold 'over the counter' to future customers." Rather, S-Corp A performs "[f]abrication work . . . to meet the specifications of the job for each customer."

In their protest letter, Taxpayers note that "[p]ursuant to Section 41(d)(2)(B), a business component means any product, process, computer software, technique, formula, or invention which is to be (i) held for sale, lease or license, or (ii) used by the taxpayer in a trade or business of the taxpayer. Taxpayers stated that "the research must be conducted for a qualified purpose, which is defined as developing a (i) new or improved function, (ii) performance, or (iii) reliability or qualify." Taxpayers argue that the fact that "[S-Corp A] does not produce a business component which can be 'sold over the counter to future customers' is not a 'position supported by either case law or statutory authority.'" Taxpayers specifically note that "the business component can be [a] new 'or improved product, process, . . . [] or technique[.]'" and that in all of the "projects reviewed by the State, [S-Corp A] has created a new process for welding or a[] new custom fabricated product unique to its customer." The fact that these processes are used by S-Corp A in its business are sufficient for S-Corp A to pass the business component test.

In the projects reviewed, S-Corp A was given a directive by its customers with no instruction as to how a project should be completed. According to Taxpayers, S-Corp A had to determine how best to fabricate the requested pieces while working within the existing infrastructure. As a part of that determination S-Corp A had to develop particular welding techniques and combinations of welding gases, wires, etc. to achieve the desired results. S-Corp A even went as far as working with third parties to develop new types of welding equipment to accomplish its goals. These welding techniques can be considered S-Corp A's business component. While welding techniques exist, S-Corp A improved on those existing techniques to achieve its purpose and even developed new techniques in some instances.

While the Department agrees that the improvement or development of welding techniques is a business component, Taxpayers did not provide documentation to support their claim that they improved or developed welding techniques. Therefore, it cannot be determined whether Taxpayers passed the third part of the test.

### 4. Part 4 - Process of Experimentation.

Finally, part 4 provides that, an expenditure is qualified research if "substantially all of the activities of which constitute elements of a process of experimentation . . . ." I.R.C. § 41(d)(1)(C).

During the audit, the Department mistakenly analyzed Taxpayers' projects under the 2004 regulations. Treas. Reg. § 1.41-4(a)(5) (2004) provides that qualified activities must,

- 1) Identify the uncertainty regarding the development or improvement of a business component
- 2) Identify one or more alternatives intended to eliminate that uncertainty
- 3) Identify and conduct a process of evaluating the alternatives.

Furthermore, substantially all (80 percent or more) of the expense must be used in qualifying activities. Treas. Reg. § 1.41-4(a)(6) (2001 and 2004).

According to the audit report, "[t]o meet this portion of the test, [S-Corp A] is required to show that 'substantially all' of [its] research activities constitute a process of experimentation for a qualified purpose. Substantially all means 80 [percent] or more based on a cost or other consistently applied reasonable basis. [S-Corp A] has not provided evidence supporting the 80 [percent] requirement." The report further stated that none of the evidence provided documented any actual experimentation that met the three criteria under Treas. Reg. § 1-41-4(a)(5). The audit report differentiated "conducting research to discover information in the development or improvement of a business component" with "troubleshooting/modifying a customer job to solve problems encountered[.]" The Department argued that S-Corp A performed the latter of the two.

Taxpayers argue that S-Corp A "was able to determine based upon an evaluation of alternatives and systematic trial and error which would best meet the functional requirements set forth by the customer." Taxpayers further claim that "[p]ertinent, contemporaneous documentation to include purchase orders and design iterations were reviewed during the [audit] . . . [and S-Corp A] was able to walk the exam team through this documentation and highlight the . . . process of experimentation undertaken by [S-Corp A]." During the Hearing Taxpayers explained that various welding techniques and fabrication designs had to be tested for each project to meet customer requirements.

Treas. Reg. § 1.41-4(a)(5) (2001) provides:

For purposes of section 41(d) and this section, a process of experimentation is a process to evaluate more than one alternative designed to achieve a result where the capability of achieving that result is uncertain at the outset. A process of experimentation does not include the evaluation of alternatives to establish the appropriate design of a business component, if the capability and method for developing or improving the business component are not uncertain. A process of experimentation in the physical or biological sciences, engineering, or computer science may involve-

- (i) Developing one or more hypotheses designed to achieve the intended result;
- (ii) Designing an experiment (that, where appropriate to the particular field of research is intended to be replicable with an established experimental control) to test and analyzed those hypotheses (through, for example, modeling, simulation, or a systemic trial and error methodology);
- (iii) Conducting the experiment; and
- (iv) Refining or discarding the hypothesis as part of a sequential design process to develop or improve the business component.

Taxpayers explained that with each project the appropriate design and welding technique was an uncertainty that had to be addressed. In its own words, S-Corp A explained that they first "created a hypothesis . . . of what fabrication process it believed would resolve the client's issue. This included creating engineering alternatives to improve either the design or expedite the fabrication process." Each hypothesis was then tested "through the creation and analysis of drawings, fabrication methods, and specifications." S-Corp A had to determine which materials would work best for a project and then develop and test welding techniques that would work best with that material. Unfortunately, Taxpayers did not provide any documentation of the experimentation process, therefore, Taxpayers failed part four of the four part test under both the 2001 and 2004 interpretation of Treas. Reg. § 1.41-4(a).

Overall, the Department determined that Taxpayers did not engage in qualifying research and development activities as Taxpayers failed to meet all four parts of the four part test. However, even if Taxpayers did meet each part of the four part test, they still would not qualify for the credit. Taxpayers' claimed activities fall under three exceptions to claiming the credit as described in I.R.C. § 41(d)(4): research expenses incurred after commercial production, research expenses related to adapting an existing business component, and research expenses disallowed when funded by a contract.

#### 1. Exception-Research after Commercial Production.

The IRC has identified specific research activities for which the credit is not allowed. Under I.R.C. § 41(d)(4)(A)



credit is denied for "[a]ny research conducted after the beginning of commercial production of the business component." Treas. Reg. § 1.41-4(c)(2) provides:

Activities conducted after the beginning of commercial production of a business component are not qualified research. Activities are conducted after the beginning of commercial production of a business component if such activities are conducted after the component is developed to the point where it is ready for commercial sale or use, or meets the basic functional and economic requirements of the taxpayers to the component's sale or use.

In explaining that the credit claimed by Taxpayers falls under this exception, the audit report stated that:

[T]he [T]axpayer[s] ha[ve] not distinguished where any research activities begin or end, and where commercial production begins . . . . The job costs sheets reviewed found direct material charges being treated as [qualified research expenses] even though they [became] part of the finished product being produced for the customer. Discussions held with the [T]axpayer[s] found the [T]axpayer[s] to believe that they were creating a prototype which is being resold and that commercial production never begins on these projects. No evidence was provided to distinguish these materials as a "prototype." The materials in question were fabricated as part of a contract to provide materials for sale for a specific customer.

Also included by the [T]axpayer[s] are wages paid to the [T]axpayer[s]' employees. Wages claimed are tied to percentages of employee salaries and not to any specific job. No evidence was provided to substantiate that wages claimed were expensed in the performance of qualified research activities.

Taxpayers argue that the Department's "reliance on the final disposition of the prototype developed by the Taxpayer[s] in its attempt to eliminate uncertainty is statutorily inconsequential to the eligibility of [] expenses. Moreover, a custom, unique fabricated piece for a particular client does not constitute 'commercial production' within the context of section 41(d)(4)(A)."

In the Hearing, Taxpayers provided a breakdown of wages claimed for each employee and tied these to specific jobs. This breakdown did not have any supporting documentation to indicate that employee hours were being recorded contemporaneously as each job progressed. Further, the job cost documentation provided by Taxpayers did not distinguish between research activities and commercial production. Without sufficient documentation, the Department cannot determine whether or not this exception applies.

## 2. Exception-Adaptation of Existing Business Component.

The audit report discussed another exception applicable to Taxpayers. The exception for adaptation of an existing business component falls under I.R.C. § 41(d)(4)(B) which denies credit for "[a]ny research related to the adaptation of an existing business component to a particular customer's requirement or need." I.R.C. § 41(d)(2)(B) defines "business component" as "any product, process, computer software, technique, formula, or invention which is to be (i) held for sale, lease or license, or (ii) used by the taxpayer in a trade or business of the taxpayer." Research qualifies for the REC if it is "undertaken for the purpose of discovering information-- . . . (ii) the application of which is intended to be useful in the development of a new or improved business component of the taxpayer . . ." I.R.C. § 41(d)(1)(B).

The audit report essentially argued that the projects reviewed fell under this exception as S-Corp A performed research and fabricated parts for their customer's existing business components. Taxpayers argue that the "fundamental premise behind the adaptation exclusion remains that there is seemingly no uncertainty because the business component has already been created." Further, Taxpayers state that the audit report failed to acknowledge the uncertainty involved with each reviewed project, the design and engineering work required as well as the "systematic trial and error process undertaken by the Taxpayer[s] to resolve these uncertainties."

The audit report's analysis of the adaptation exception is inaccurate; the exception turns on whether research is related to the adaptation of a taxpayer's existing business component, not a customer's existing business component. However, as noted in analysis under part three of the four part test, Taxpayers did not provide documentation to support their claims of uncertainty or that it improved or developed any business component. Therefore, it cannot be determined whether Taxpayers fall under this exception. Thus, Taxpayers' protest for this exception is deemed waived.

## 3. Exception-Funded Research.

Research funded by any grant, contract or another person does not qualify as research. I.R.C. 41(d)(4)(H). The audit report stated that according to discussions with key S-Corp A employees, "no work was performed on either project prior to them having signed a contract with their customer. [S-Corp A] indicated that no work is performed on a job until the taxpayer has signed a contract to perform work for a customer. Any research expenses that may be incurred by the taxpayer appear to be funded by the customer under terms of the contract with their customers . . . ." Taxpayers argue that "[s]imply because a Taxpayer is performing work under a contract does not mean that[] [it is] funded. The [Department] has not articulated any reason to support the application of the funding exclusion other than to state that it performs work under a signed contract." Similarly, Taxpayers have not articulated an argument as to why it does not meet the exception. Thus, Taxpayers' protest for this exception is deemed waived.

Taxpayers failed to show that S-Corp A meets the four part test. Taxpayers also failed to demonstrate that S-Corp A's expenses do not meet any of the exceptions described in I.R.C. § 41(d)(4). Thus based on the information above, Taxpayers have not met the burden of proving the proposed assessments wrong, as required by IC § 6-8.1-5-1(c).

## **B. S-Corp B**

The RECs claimed by Taxpayers were based on a review of projects which fell under three categories; "Metal Fabrication & Machining, Construction Jobs and [S-Corp A] Construction Jobs." For purposes of the study ("S-Corp B Study"), the consulting firm conducted a sample to narrow the review to thirty-five metal fabrication claims, forty construction claims and thirty S-Corp A claims. In its review, the audit report noted that "[S-Corp A] jobs [were] not included in the [S-Corp B] study." Further, the audit report noted that "[t]he [S-Corp B] study provides a project description for 29 [twenty-nine] of the 40 [forty] construction projects and 24 [twenty-four] of the 35 [thirty-five] metal fabrication projects. No description of the remaining projects was provided . . . ."

During the audit "[a] copy of the Research and Development Study and supporting documentation was requested." Taxpayers' consultant provided a CD with over 23,000 pages of information to be reviewed. This information covered only five of the projects included in the RECs claimed by S-Corp B. "Four (4) of the five projects addressed on the CD contained information on jobs performed in 2012 which were outside the period being examined." The audit determined that the "additional information provided on the CD was of no value in determining if [S-Corp B] had expenditures which qualified for the Indiana research credit." Thus, a questionnaire was prepared "to help determine the extent of research being performed by [S-Corp B]." Ultimately, the audit noted that after "an in depth review of the Indiana research and development tax credit study . . . and all information provided to the auditor," the REC claimed "should be denied in its entirety."

During the Hearing, Taxpayers discussed project 11-5148 to illustrate why it believed S-Corp B's activities qualified for the REC. Taxpayers provided documentation related to project 11-5148 to the Department after the Hearing. This project along with the audit results will be discussed below.

### **1. Project 11-5148**

Customer engaged S-Corp B to replace a conveyor system for its coal mine and to paint the new conveyor system to customer specifications. Per S-Corp B's Study:

[S-Corp B] undertook this project to provide custom metal fabrication design and development services for a large and complex structural steel project for [Customer]. [S-Corp B] developed and implemented fabrication designs for various coated, uncoated, and grated structural and miscellaneous steel scrubber, oxidation, and limestone components at a [Customer] power generating facility. Although the scope of this engineering design [S-Corp B] developed shop-specific details of the structural steel beams, including the required angles and hatches, in order to execute the fabrication. In addition, [S-Corp B] encountered technical challenges when developing the optimal fabrication for the coated handrail components. Specifically, the characteristics of the steel materials and the fabrication process for the handrails were not compatible with the paint and coatings for the project. [S-Corp B] evaluated alternative processes and determined a grinding process for over 800 feet of handrail allowed for the implementation of the required coatings package.

Taxpayers provided diagrams, drawings, pictures, progress billings, change orders and schedules pertaining to the project.

#### **1. Part 1-I.R.C. § 174 test.**

"The term 'qualified research' means research with respect to which expenditures may be treated as expenses under section 174. . . ." I.R.C. § 41(d)(1)(A). I.R.C. § 174 states:

A taxpayer may treat research or experimental expenditures which were paid or incurred by him during the taxable year in connection with his trade or business as expenses which are not chargeable to a capital account. The expenditure so treated shall be allowed as a deduction.

Treas. Reg. § 1.174-2(a)(1) further defines "research and experimental expenditure,"

The term research or experimental expenditures, as used in section 174, means expenditure incurred in connection with the taxpayer's trade or business which represents research and development costs in the experimental or laboratory sense. The term generally includes all such costs incident to the development or improvement of a product. The term includes the costs of obtaining a patent, such as attorney's fees expended in making and perfecting a patent application. **Expenditures represent research and development costs in the experimental or laboratory sense if they are for activities intended to discover information that would eliminate uncertainty concerning the development or improvement of a product. Uncertainty exists if the information available to the taxpayer does not establish the capability or method for developing or improving the product or the appropriate design of the product.** (Emphasis original) (Emphasis added).

As stated in the audit report, wages of personnel and supplies were claimed as research expenses. In its audit report, the Department noted that the RECs claimed on S-Corp B's amended federal returns "far exceed[] the adjustment[s] made on the amended returns." Further:

A review of the labor charges included in the credit claimed revealed employees of various positions and job titles being claimed as being directly involved with research.

Just a quick glance indicates that the taxpayer has included many employees that are performing general field construction work or have no direct correlation with research (secretaries, safety personnel). It was also noted that multiple supervisors, foremen, the CEO and the vice president have been included in the wages claimed by the taxpayer.

No documentation has been provided concerning the specific amount of labor cost expended in the performance of qualified research activities. The taxpayer has provided labor cost amounts that are allocated to specific projects for most of the employees, but no evidence has been provided to substantiate the actual time spent by any employee performing qualified research activities on any specific project.

In its protest letter, Taxpayers note that "[a]lthough an examination of both [S-Corp B] and [S-Corp A] was conducted, only the basis for [S-Corp A's] R&D credit was analyzed. As a result, Taxpayer[s] will address the substantive issues raised by the [Department] and hereby protest[] the R&D findings as they relate to [S-Corp B]." Taxpayer[s] explained at the Hearing that the arguments made for S-Corp A apply to S-Corp B as well. Further, because Taxpayer[s] did not provide a protest letter for S-Corp B, the Department looks to the S-Corp B Study to help determine Taxpayers' position.

In the S-Corp B study, the consultant points out that while each of S-Corp B's projects "was undertaken to meet specific and unique project requirements . . . each project's overall purpose and development processes were similar. Therefore, the [information provided in S-Corp B's Study] provides a qualification overview for all of the identified R&D projects." According to S-Corp B's Study, "[S-Corp B] undertook various unique construction projects to develop design solutions by improving value and constructability for new facilities and significant additions and improvements of existing facilities . . . [a]t the outset of the projects, [S-Corp B] faced many uncertainties regarding the final design resulting from the unique combinations of all project requirements." These uncertainties related to "the capability or method of many requirements."

As Taxpayers point out in their protest letter, the uncertainty requirement was clarified by the IRS in 1994 in Treasury Decision 8562. In Treasury Decision 8562 the IRS states that "the requisite uncertainty exists if the information available to the taxpayer does not establish either (i) the capability or method for developing or improving the product, or (ii) the appropriate design of the product." The S-Corp B Study included a description of each project considered for the REC. While these project descriptions discuss the uncertainties faced in each project, it should be noted that documentation outlining the uncertainties encountered and the processes S-Corp B went through to address these uncertainties was not provided. Thus, while an explanation of the project and its requirements can inform the Department that qualified research was taking place, the lack of documentation may

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prevent S-Corp B from meeting other parts of the I.R.C. § 41 four-part test.

It is not clear from the project description or a review of the documentation provided in relation to project 11-5148 whether the requisite uncertainty existed. Taxpayers have not met the first part of the test.

## 2. Part 2-Discovering Information that is Technological in Nature.

Research qualifies for the REC if it is "undertaken for the purpose of discovering information-- (i) which is technological in nature. . . ." I.R.C. § 41(d)(1)(B). Treas. Reg. § 1.41-4(a)(3)(i) (2001) goes on to explain that research is "undertaken for the purpose of discovering" information only if it is "undertaken to obtain knowledge that exceeds, expands, or refines the common knowledge of skilled professionals in a particular field of science or engineering." This does not require the taxpayer to be successful nor does it require the research to "be more than evolutionary," rather, the research must be taken one step beyond what is commonly available to similarly situated professionals. *Id.* For the purposes of meeting part one of the test, Taxpayer is allowed to employ existing technologies and rely on existing principals. Treas. Reg. § 1.41-4(a)(3)(iii) (2001).

Treas. Reg. § 1.41-4(d)(3)(ii) (2001) defines "common knowledge" of skilled professionals in a particular field of science or engineering "as information that **should be known** to skilled professionals had they performed, before the research in question is undertaken, a reasonable investigation of the existing level of information in the particular field of science or engineering." (**Emphasis added**).

In the audit report, the Department acknowledges that "while it does appear that what the [T]axpayer[s] [are] doing is technological in nature, the auditor is not convinced the [T]axpayer[s] [are] 'discovering information' to develop a new or improved business component." The report explains that Taxpayers are "a contractor that primarily provides fabrication and field services. The customer provides engineering drawings and component specifications as to the work that is being completed . . . ." Further, the audit report noted that while "some 'trial and error' may occur during various fabrication stages of the contract the audit does not believe any true research is being conducted by the [T]axpayer[s]." Rather, Taxpayers are "simply attempting to complete the contract work in accordance with the job specifications while minimizing job costs to an acceptable level."

Research qualifies for the REC if it is undertaken to discover information that is technological in nature. The Department is correct in that the work performed by Taxpayers is technological in nature. However, the Department's analysis of whether that information "develop[s] a new or improve[s] [an existing] business component" misses the mark. Rather, as stated above, the analysis should be whether the discovery of information is "undertaken to obtain knowledge that exceeds, expands, or refines the common knowledge of skilled professionals in a particular field of science or engineering." Treas. Reg. § 1.41-4(a)(3)(i) (2001). This requires the research to be taken one step beyond what is commonly available to similarly situated professionals. *Id.*

On its face it appears that replacing a conveyor system as S-Corp B did in project 11-5148 may require S-Corp B to work with and discover information that is technological in nature. However, the information does not appear to be the kind that "exceeds, expands, or refines the common knowledge of skilled professionals in a particular field of science or engineering." S-Corp B's Study generally discusses this requirement stating that "[t]hroughout its projects, [S-Corp B] based its process of experimentation on the principles of mechanical engineering and material science . . . [and] formulated its engineering decisions based upon reviewing engineering calculations, analyses, and recommendations." As the audit noted, it does appear that S-Corp B's research is technological in nature, however, Taxpayers did not provide evidence that would support such a conclusion. Due to this lack of documentation, Taxpayers do not meet the second of the four parts test under I.R.C. § 41.

## 3. Part 3-Business Component Test.

Research qualifies for the REC if it is "undertaken for the purpose of discovering information-- . . . (ii) the application of which is intended to be useful in the development of a new or improved business component of the taxpayer . . . ." I.R.C. § 41(d)(1)(B). The audit report stated that "[t]he [T]axpayer must intend to apply the information being discovered to develop a new or improved business component." The audit report goes on to define "business component" as "any product, process, computer software, technique, formula, or invention, which is to be held for sale, lease, license, or used in a trade or business of the taxpayer." The Department determined that S-Corp B "does not produce a business component which can be sold 'over the counter' to future customers." Rather, for S-Corp B the "[e]xpenses incurred are direct material and labor costs necessary to complete terms of the contract being fulfilled and is not research being performed by the [T]axpayer."

As described, project 11-5148 did not involve the development of a new or improvement of an existing business component. No such activity was involved in the replacement of the conveyor system. While S-Corp B had never worked with the type of paint required by the customer, it did not develop any new techniques, formulas or the like in getting the paint to adhere to the steel.

The S-Corp B Study notes that "[S-Corp B] undertook various unique construction projects to develop design solutions by improving value and constructability for new facilities and significant additions and improvements to existing facilities. . . . [E]ach project involved a unique combination of various owner requirements and site conditions . . . [a]s a result . . . [S-Corp B] developed new or improved design solutions and construction methods for each project." Taxpayers did not provide documentation upon which a determination of whether or not S-Corp B developed or improved an existing business component can be made. Therefore, it cannot be determined whether Taxpayers passed the third part of the test.

#### 4. Part 4 - Process of experimentation.

Finally, part 4 provides that, an expenditure is qualified research if "substantially all of the activities of which constitute elements of a process of experimentation . . . ." I.R.C. § 41(d)(1)(C).

During the audit, the Department analyzed Taxpayers' projects under the 2004 regulations. Treas. Reg. § 1.41-4(a)(5) (2004) provides that qualified activities must:

- 4) Identify the uncertainty regarding the development or improvement of a business component
- 5) Identify one or more alternatives intended to eliminate that uncertainty
- 6) Identify and conduct a process of evaluating the alternatives.

Furthermore, substantially all (80 percent or more) of the expense must be used in qualifying activities. Treas. Reg. § 1.41-4(a)(6) (2001 and 2004).

According to the audit report, "[t]o meet this portion of the test, [S-Corp B] is required to show that 'substantially all' of [its] research activities constitute a process of experimentation for a qualified purpose. Substantially all means 80 [percent] or more based on a cost or other consistently applied reasonable basis. [S-Corp B] has not provided any evidence supporting the 80 [percent] requirement." The report further stated that "[n]o credible evidence has been provided that would distinguish [S-Corp B's] 'research' activities from the normal direct job cost activities of any other contractor/fabricator in this type of business." The report distinguishes S-Corp B's activities which included "troubleshooting/modifying a customer job" from those that are akin to "conducting research to discover information to develop a new or improved business component."

In its Study, POA noted that "at the outset of each project [S-Corp B] undertook a multi-phase process of experimentation to meet all project requirements" and "conducted a systematic process to develop unique methods . . . to achieve unique client stipulated functions and performance." This process started with the job bid phase and continued after winning a job until the project is complete. The study mentioned that documentation such as drawings, process diagrams, floor plans, specification outlines, construction documents and design alternatives are created and utilized during the multi-phase process, yet such documents were not provided during the Hearing.

Taxpayers did provide drawings, diagrams and the like for project 11-5148, but it is unclear from these documents whether they represent a qualifying process of experimentation.

Treas. Reg. § 1.41-4(a)(5) (2001) provides:

For purposes of section 41(d) and this section, a process of experimentation is a process to evaluate more than one alternative designed to achieve a result where the capability of achieving that result is uncertain at the outset. A process of experimentation does not include the evaluation of alternatives to establish the appropriate design of a business component, if the capability and method for developing or improving the business component are not uncertain. A process of experimentation in the physical or biological sciences, engineering, or computer science may involve-

- (i) Developing one or more hypotheses designed to achieve the intended result;
- (ii) Designing an experiment (that, where appropriate to the particular field of research is intended to be replicable with an established experimental control) to test and analyzed those hypotheses (through, for example, modeling, simulation, or a systemic trial and error methodology);
- (iii) Conducting the experiment; and

- (iv) Refining or discarding the hypothesis as part of a sequential design process to develop or improve the business component.

Whether or not S-Corp B could replace the conveyor system was not an uncertainty at the outset of the project; a conveyor system already existed, thus there was a given level of certainty that it could be replaced. At best, S-Corp B performed evaluations of various alternatives to establish the best design for the replacement conveyor. Taxpayers did not provide any documentation to prove otherwise, therefore, Taxpayers failed part four of the four part test.

Overall, the Department determined that Taxpayers did not engage in qualifying research and development activities as Taxpayers failed to meet all four parts of the four part test. However, even if Taxpayers did meet each part of the four part test, they still would not qualify for the credit. Like S-Corp A, S-Corp B's claimed activities fall under three exceptions to taking the credit as described in I.R.C. § 41(d)(4): research expenses incurred after commercial production, research expenses related to adapting an existing business component, and research expenses disallowed when funded by a contract. While Taxpayers have generally protested the S-Corp B audit assessments, Taxpayers have not specifically addressed these exceptions. Thus, the Department cannot determine whether these exceptions apply. The point is moot as S-Corp B failed to qualify for the REC under the four part test.

In summary, while it is possible that S-Corp A or S-Corp B engaged in qualifying research and development activities, Taxpayers failed to provide contemporaneous documentation to show that either entity met the four part test prescribed under IRC § 41. Without such documentation, Taxpayers cannot claim the research expense credit.

### **FINDINGS**

Taxpayers' protest is denied.

*Posted: 07/26/2017 by Legislative Services Agency*  
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