Cause No. D-1-GN-21-006290

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| Ryan, LLC,<br>Plaintiff,<br><br>v.<br><br>Glenn Hegar, in His Official Capacity as Comptroller of Public Accounts of the State of Texas, and the Office of the Comptroller of Public Accounts for the State of Texas,<br>Defendants. | §<br>§<br>§<br>§<br>§<br>§<br>§<br>§<br>§<br>§<br>§ | In the District Court<br><br><br><br><br>of Travis County, Texas<br><br><br><br><br>353rd Judicial District |

**Defendants' Motion for Summary Judgment**

In 2013, the Texas Legislature enacted two tax breaks—a sales-tax exemption and a franchise-tax credit—designed to "make Texas economically competitive in the field of research and development." Act of May 21, 2013 § 1(b)(1).

Applied properly, these R&D tax breaks create "high-paying jobs that provide substantial benefits to the Texas economy" as well as "new technologies and applications that generate economic efficiency and growth." *Id.* § 1(a)(2). Applied too broadly, though, the tax breaks would miss the legislative mark: businesses would be rewarded for ordinary activities without having to innovate.

In this suit, Ryan, LLC, a tax-consulting firm, is seeking to lower the bar for tax-favored research and development by asking the Court to invalidate portions of the Comptroller's rules that implement the R&D tax breaks. Because the rules faithfully interpret and enforce their governing statutes, the Court should deny Ryan, LLC's request and instead declare the rules valid.

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## BACKGROUND

In 2013, the Texas Legislature enacted HB 800, a bill creating a sales-tax exemption and franchise-tax credit for certain research-and-development (R&D) activities. Act of May 21, 2013, 83rd Leg., R.S., ch. 1266, 2013 Tex. Sess. Law Serv. (codified at Tex. Tax Code §§ 151.3182, 171.651–.665). The Legislature proclaimed that the purposes of the Act were to:

> (1) make Texas economically competitive in the field of research and development;
>
> (2) reduce the tax burden on research and development activities in Texas and encourage new investments in this state;
>
> (3) promote the creation of new, highly skilled, high-paying jobs in Texas; and
>
> (4) compliment this state's manufacturing industries by encouraging innovation and efficiency in applying new technologies and producing new products.

Act of May 21, 2013 § 1(b).

Supporters of the bill explained that the "Texas Healthcare & Bioscience Institute and those within the life sciences industry represent the types of groups that would take advantage of the incentive." House Research Org., Bill Digest, Tex. HB 800, 83rd Leg., R.S. (2013). They also noted that the bill would "incentivize partnerships between the private sector and higher education institutions" that would "encourage teachers and students to come up with new patents." *Id.* Others expressed the concern that the tax breaks would be co-opted by taxpayers that did not conduct research and development, such as "food stores" and "home furniture companies." *Id.*

Both the sales-tax exemption and the franchise-tax credit provide tax breaks for taxpayers who engage in "qualified research"—innovative research that will bring the best engineers and scientists to Texas. *See* Tex. Tax Code §§ 151.3182(b) (providing exemption), 171.654(a) (providing credit). As the name suggests, "qualified research" is not just any research or development. Instead, "qualified research" describes research that leads to the development of novel products and processes. *See* Act of May 21, 2013 § 1 (listing the Texas Legislature's findings and purposes for the R&D tax breaks); 26 U.S.C. 41(d) (defining "qualified research").

The year after the R&D exemption and credit went into effect, the Comptroller adopted rules 3.340 and 3.599 implementing the tax breaks. 40 Tex. Reg. 8663 (2015) (codified at 34 Tex. Admin. Code § 3.340); 40 Tex. Reg. 1858 (2015) (codified at 34 Tex. Admin. Code § 3.599).

Rule 3.340 provides guidance to taxpayers regarding the R&D sales-tax exemption, which is primarily governed by Texas Tax Code section 151.3182. 34 Tex. Admin. Code § 3.340. This tax exemption applies to the "sale, storage, or use of depreciable tangible personal property directly used in qualified research." Tex. Tax Code § 151.3182(b). The result of the exemption is that certain purchases related to R&D activities are not subject to sales tax. *Id.*

In a similar vein, rule 3.599 guides taxpayers on when they may take the R&D franchise-tax credit. 34 Tex. Admin. Code § 3.599. The tax credit directly reduces the amount of franchise tax due after any deductions to margin have been made and after the tax rate has been applied. *See* Tex. Tax Code § 171.658 (relating to application of

credit to tax due). The substance of the credit is nearly identical to the sales-tax exemption and is governed by Texas Tax Code Chapter 171, Subchapter M. *Id.* § 171.652. The franchise-tax credit and sales-tax exemption cannot be taken concurrently. *Id.* § 171.653(a).

After several years of experience administering the R&D exemption and credit, the Comptroller adopted amendments to the rules in order to provide further guidance to taxpayers on what activities qualify for the tax breaks. 46 Tex. Reg. 7048 (2021) (codified as an amendment to 34 Tex. Admin. Code § 3.340); 46 Tex. Reg. 7060 (2021) (codified as an amendment to 34 Tex. Admin. Code § 3.599).

These amendments were promulgated after an extensive and thorough process of notice and comment governed by the Texas Administrative Procedure Act. First, the Comptroller notified taxpayers of the proposed amendments to rules 3.340 and 3.599. 46 Tex. Reg. at 7048, 7060; *see* Tex. Gov't Code § 2001.023 (requiring notice). Then, taxpayers submitted comments to the Comptroller regarding the proposed amendments. 46 Tex. Reg. at 7048, 7060; *see* Tex. Gov't Code § 2001.029(a) (providing for public comment). At taxpayers' request, the Comptroller held a public hearing on the proposed amendments at which taxpayers and taxpayer representatives offered further comments. 46 Tex. Reg. at 7048, 7060; *see* Tex. Gov't Code § 2001.029(b) (providing opportunity for public hearing). The Comptroller then reviewed and considered each comment and responded to the comments in the publication of the final versions of the rules. 46 Tex. Reg. at 7048–52, 7060–66; *see* Tex. Gov't Code

§ 2001.029(c) (requiring consideration of comments), .030 (requiring responses to comments).

The amended rules ensure that the research and development that receives tax breaks is truly inventive, aligning with the purposes of the governing statutes of promoting Texas as a leader in the innovation that drives economic development in all sectors of the economy.

## ARGUMENT

The disputed[1] portions of the Comptroller's R&D rules are valid because the rules remain within the ambit of their governing statutes: the rules do not go beyond the letter, purpose, or burdens of the law as enacted by the Texas Legislature. *See Tex. Bd. of Chiropractic Exam'rs v. Tex. Med. Ass'n*, 616 S.W.3d 558, 569 (Tex. 2021) (listing elements of a rule challenge).

Simply put, the rules provide guidance to taxpayers on how to apply the R&D statutes to the taxpayers' businesses. Where the statutes are general, the rules get specific. *See DuPont Photomasks, Inc. v. Strayhorn*, 219 S.W.3d 414, 420 (Tex. App.—Austin 2006, pet. denied) ("[T]he legislature is not required to include every specific detail or anticipate all unforeseen circumstances."); *Perry Homes v. Strayhorn*, 108 S.W.3d 444, 448 (Tex. App.—Austin 2003, no pet.) ("The Comptroller is authorized to adopt rules that clarify and implement the legislation."). The rules offer detailed

[1] Having filed proposed amendments to 34 Tex. Admin. Code sections 3.340(a)(6), 3.599(b)(5), and 3.599(d)(5) with the Secretary of State, the Comptroller will not defend Ryan, LLC's challenges to those portions of the rules. *See* Ex. 1–4.

examples of when the R&D tax breaks do or do not apply and provide taxpayers with information they will need to properly claim the tax breaks.

Because the rules faithfully implement their governing statutes, the Court should uphold the portions of the rules that are in dispute and declare them valid.

## I. Texas law, policy, and precedent govern this suit.

This suit is a rule challenge under the Texas Administrative Procedure Act. Orig. Pet. ¶ 9; *see* Tex. Gov't Code § 2001.038 (waiving sovereign immunity for declaratory-judgment actions to determine the validity of a rule). Ryan, LLC argues that specific sections and subsections of Comptroller rules 3.340 and 3.599 are invalid because they do not comport with the governing Texas statutes. Orig. Pet. ¶¶ 9, 12. As such, both the standard of review to be applied and the substance of the Court's analysis are governed by Texas law.

### A. Administrative rules are presumed to be valid.

A fundamental principle of rule challenges is that the challenged rule is presumed to be valid. *Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 568. Deference is given to the agency's expertise, and the party challenging the rule—here, Ryan, LLC—has the burden of showing that the challenged portions of the rule are invalid. *Id.*

A portion of a rule is invalid only when it "(1) contravenes specific statutory language; (2) runs counter to the general objectives of the statute; or (3) imposes additional burdens, conditions, or restrictions in excess of or inconsistent with the relevant statutory provisions." *Id.* at 569. As a matter of law, Ryan, LLC cannot show that the R&D rules meet any of these conditions.

### B. The rules promote the legislative objective of the R&D statutes: making Texas "economically competitive in the field of research and development."

Rules 3.340 and 3.599 remain faithful to the purposes of the R&D statutes by ensuring that taxpayers apply the R&D tax breaks to the activities for which the tax breaks were intended: cutting-edge research and development that will make Texas a national leader in innovation.

As the Legislature stated when it enacted HB 800, the tax breaks are intended to encourage "innovation and efficiency in applying new technologies and producing new products." Act of May 21, 2013 § 1(b)(4). The new technologies and high-paying jobs generated by research and development, in turn, "provide substantial benefits to the Texas economy" and "generate economic efficiency and growth." Act of May 21, 2013 § 1(a)(2). The R&D tax breaks will incentivize businesses to invest in innovative research and development, though, only if businesses are required to do so in order to claim a tax break.

If, for example, the R&D tax breaks applied to run-of-the-mill software programming—such as building websites and cell-phone apps—companies would have no tax incentive to hire highly skilled workers who could expand the horizons of computer science. In the same vein, if an oil-and-gas company could get an R&D tax break for ordinary drilling activities, the company would have no tax incentive to invest in exploring the frontiers of geoscience.

In short, if the R&D tax breaks applied too broadly, businesses would be rewarded for expenses they already incur in carrying out their normal day-to-day operations. To ensure that the R&D tax breaks are doing their job of bringing the best

and brightest to Texas, the Comptroller's R&D rules maintain the bar set by their governing statutes.

## II. The requirement of contemporaneous business records ensures truthfulness in tax reporting.

Rules 3.340 and 3.599 provide that a taxpayer must support its qualification for an R&D tax exemption or credit with "contemporaneous business records." 34 Tex. Admin. Code §§ 3.340(b)(6), 3.599(e)(2)(B). This requirement, as stated in the rules, is simply a reminder to taxpayers of a generally applicable—and common sense—principle of tax law.

When a taxpayer is asked to verify that the amount of tax it reported accurately reflects its activities or business practices, the taxpayer must substantiate its reported amount with contemporaneous records of those activities or business practices. Tex. Tax Code § 111.0041(c).[2] For example, a convenience-store operator might be asked to produce receipts or other contemporaneous records to show the amount of sales that took place at her store.

Without the requirement of contemporaneous records, taxpayers could invent their tax liability out of whole cloth. That would be fraud, yes. But it would be difficult to determine whether or not a taxpayer was telling the truth. By requiring

[2] Texas Tax Code section 111.0041(c) provides in full:

> A taxpayer shall produce contemporaneous records and supporting documentation appropriate to the tax or fee for the transactions in question to substantiate and enable verification of the taxpayer's claim related to the amount of tax, penalty, or interest to be assessed, collected, or refunded in an administrative or judicial proceeding. Contemporaneous records and supporting documentation appropriate to the tax or fee may include, for example, invoices, vouchers, checks, shipping records, contracts, or other equivalent records, such as electronically stored images of such documents, reflecting legal relationships and taxes collected or paid.

contemporaneous records, the question of whether a taxpayer is bluffing is largely taken off the table because the records speak for themselves: they are direct evidence of the transactions in question.

The contemporaneous-records requirement also helps prevent taxpayers from retroactively manufacturing tax benefits by restructuring or recharacterizing transactions after the fact. For example, in the sales-tax context, a taxpayer might attempt to restructure an itemized construction contract as a lump-sum contract after the fact in order to obtain tax benefits. *See* Tex. Tax Code § 151.056 (distinguishing lump-sum and itemized contracts).

The requirement of contemporaneous records applies to all Texas state-wide taxes: sales tax, motor-fuel tax, tobacco-products tax, and franchise tax, to name just a few. *Id.* § 111.0041(d) ("This section prevails over any other conflicting provisions of this title."). As components of the sales tax and franchise tax, the R&D sales-tax exemption and franchise-tax credit also include the requirement that they be supported by contemporaneous records. Rules 3.340(b)(6) and 3.599(e)(2)(B) simply incorporate that requirement, reminding taxpayers of this generally applicable principle.

## III. The "clear and convincing" burden of proof applies to tax exemptions and taxpayer claims tantamount to exemptions.

The R&D rules provide that a taxpayer must prove its entitlement to the exemption or credit by clear and convincing evidence. 34 Tex. Admin. Code §§ 3.340(b)(6), 3.599(e)(2). As with the R&D rules' requirement of contemporaneous

records, the rules' inclusion of this burden of proof is simply a restatement of a principle of tax law that applies well beyond the R&D tax breaks.

In tax disputes, "the taxpayer has the burden to 'clearly show' that an exemption applies." *Sw. Royalties, Inc. v. Hegar*, 500 S.W.3d 400, 404 (Tex. 2016). This burden also applies to any taxpayer's "contention" that is "tantamount to a claim for exemption." *Bullock v. Nat'l Bancshares Corp. of Tex.*, 584 S.W.2d 268, 271 (Tex. 1979).

The Comptroller's general rules for administrative hearings incorporate this law, in part, by providing that a taxpayer must prove its entitlement to an "exemption or a deduction tantamount to an exemption" by clear and convincing evidence. 34 Tex. Admin. Code § 1.26(c).

Rule 3.340 applies this general principle from caselaw and the Comptroller's administrative hearings to the R&D sales-tax exemption, and rule 3.599 applies the principle to the R&D franchise-tax credit, a tax break "tantamount to an exemption." *See Nat'l Bancshares Corp. of Tex.*, 584 S.W.2d at 271 (applying burden of proof). The R&D franchise-tax credit is "tantamount to an exemption" because the credit relates to the same activities as the R&D sales-tax exemption—namely "qualified research." Thus, the R&D franchise-tax credit is just a different application of the same exception from tax liability provided by the R&D sales-tax exemption, and the same burden of proof should apply.

## IV. The R&D rules provide guidance to taxpayers about details of the R&D tax breaks.

Rules 3.340 and 3.599 provide specific examples of activities that may or may not constitute "qualified research" and address details of the term "qualified research" that the statutes gloss over. The Comptroller's examples and detailed analyses provide guidance to taxpayers on what activities qualify for the R&D tax breaks. Rather than going through an ad hoc, post facto audit or refund proceeding, taxpayers can consult rules 3.340 and 3.599 to assess whether an activity is tax-favored R&D or not.

In this suit, Ryan, LLC is challenging some of the Comptroller's examples and detailed analyses in rules 3.340 and 3.599 as they relate to the definition of "qualified research." Orig. Pet. ¶ 28. To give context to Ryan, LLC's complaints, it will be necessary to explain some particulars of the R&D tax exemption and credit.

In order for the credit or exemption to apply, the taxpayer (or contractors of the taxpayer) must conduct "qualified research." Tex. Tax Code §§ 151.3182(b) (providing exemption), 171.654(a) (providing credit). If there is no "qualified research," there is no exemption or credit. To be "qualified research," an activity must meet all four elements of what has come to be called, appropriately, the "Four Part Test": the activity must pass (1) the "Section 174 Test," (2) the "Discovering Technological Information Test," (3) the "Business Component Test," and (4) the "Process of Experimentation Test." *Id.* §§ 151.3182(a)(3) (incorporating definition of "qualified research" from 26 U.S.C. § 41), 171.651(3) (same); 26 U.S.C. §§ 41(d)(1)(A)

(Section 174 Test), (B)(i) (Discovering Technological Information Test), (B)(ii) (Business Component Test), (C) (Process of Experimentation Test).[3]

An activity that passes all four parts of the Four Part Test—and is thus "qualified research"—may nevertheless not qualify for the R&D exemption or credit if the activity falls within one of the statute's exclusions: research after commercial production, adaptation of existing business components, internal use software, and duplication of existing business components, to list a few. 26 U.S.C. § 41(d)(4).

Thus, to take the R&D exemption or credit, a taxpayer must first show that its activities pass the Four Part Test and then show that the activities are not otherwise excluded. Ryan, LLC's complaints about the Comptroller's guidance to taxpayers relate to details of the Business Component Test, the Process of Experimentation Test, and the exclusions from "qualified research" for research after commercial production and adaptation of existing business components. Orig. Pet. ¶ 9.

**A. A service is not a "business component."**

The federal law incorporated into the Texas Tax Code provides that a "business component" must be a "product, process, computer software, technique, formula, or invention." 26 U.S.C. § 41(d)(2)(B). Rules 3.340 and 3.599 both remind taxpayers that "because a service is not a product, process, computer software, technique, formula, or invention," a service—by itself—is not a "business component." 34 Tex. Admin. Code §§ 3.340(c)(1)(C)(i), 3.599(c)(1)(C)(i).

[3] Throughout this motion, all citations to federal statutes and regulations are made with the understanding that those statutes and regulations are incorporated, with limitations, into Texas law by Texas Tax Code sections 151.3182 and 171.651.

During notice and comment on the R&D rules, some taxpayers expressed the concern that businesses that provide services would not be eligible for R&D tax breaks. 46 Tex. Reg. at 7049, 7063. The Comptroller addressed that concern by explaining in the rules that if a taxpayer uses a "business component"—perhaps one of its inventions—to provide services to customers, the taxpayer could still be eligible for an R&D tax break. 34 Tex. Admin. Code §§ 3.340(c)(1)(C)(i), 3.599(c)(1)(C)(i).

Because the governing statutes do not make a service a "business component," neither of the R&D rules "contravene specific statutory language." *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements). Nor do the rules impose "additional burdens, conditions, or restrictions" beyond those of the statutes—because, once again, the statutes do not make a service a "business component." *See id.* And the rules' clarification that a service is not a "business component" supports the statutes' legislatively stated purpose of complementing Texas's "manufacturing industries by encouraging innovation and efficiency in applying new technologies and producing new products" by limiting the tax break to the types of activities contemplated by the statutes. *See* Act of May 21, 2013 § 1(b)(4) (stating purposes of the Act).

**B. A design is also not a "business component."**

Like services, designs—by themselves—are not business components. 34 Tex. Admin. Code §§ 3.340(c)(1)(C)(ii), 3.599(c)(1)(C)(ii); *see* 26 U.S.C. § 41(d)(2)(B) (listing business components). Instead, a design can be one aspect of a business component. For example, a design could be the design of a "product," the design of "computer software," or the design of an "invention." In fact, the federal law incorporated into

the Texas Tax Code refers to "the appropriate design of the business component." 26 C.F.R. § 1.41-4(a)(3). But a design is not itself a business component.

Because the statutes do not make a design a "business component," the rules' clarification of this point does not "contravene" the statutes' language, "run counter" to the statutes' purpose, or impose "additional burdens, conditions, or restrictions" beyond those in the statutes. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements).

### C. Constructing a test pile while building a foundation is not a "process of experimentation."

The Comptroller's R&D rules provide taxpayers with specific examples of activities that may or may not constitute "qualified research." One element of "qualified research" is that the activity must be a "process of experimentation." 26 U.S.C. § 41(d)(1)(C).

One of the Comptroller's examples of an activity that does not constitute a "process of experimentation" involves a company that is constructing the foundation for a building. 34 Tex. Admin. Code §§ 3.340(c)(1)(D)(vii)(V), 3.599(c)(1)(D)(vii)(V). Because foundation problems are common in the area, the company begins construction by building a "pile" (a support structure within a building's foundation). *Id.* The company will then test the pile to determine whether using piles is feasible for that particular site. *Id.* Regardless of whether the pile is successful, though, it will become a part of the building's foundation. *Id.*

The Comptroller explains in the R&D rules that constructing the test pile is not a "process of experimentation" because the testing does "not resolve technological

uncertainties through an experimental process" and is not an "evaluative process." *Id.*; 26 C.F.R. § 1.41-4(a)(5) (defining "process of experimentation"). The Comptroller's explanation tracks the governing statutes, which describe a process of experimentation as "a process designed to evaluate one or more alternatives to achieve a result where the capability of the method of achieving that result, or the appropriate design of that result, is uncertain." 26 C.F.R. § 1.41-4(a)(5).

An experimental and evaluative process would involve multiple tests that are compared with one another in a systematic fashion with the results analyzed to arrive at some hypothesis or conclusion. *See id.* (providing that a "process of experimentation" must involve "the identification and the conduct of a process of evaluating the alternatives"). Constructing a test pile that will become a part of the foundation is not a scientific experiment but rather a precaution in constructing a building. *See id.* (providing that a "process of experimentation must fundamentally rely on the principles of the physical or biological sciences, engineering, or computer science"). Caution does not equal experimentation.

Thus, the Comptroller's rules hold the line set by their governing statutes, ensuring that the tax breaks will apply to activities that are truly R&D and not simply construction. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements).

### D. Designing the layout of a building's electrical system is not a "process of experimentation."

The R&D rules give another example involving a construction firm. In this example, the firm uses computer-aided simulation and modeling to design the layout

of a building's electrical system. 34 Tex. Admin. Code §§ 3.340(c)(1)(D)(vii)(VI), 3.599(c)(1)(D)(vii)(VI). The firm considers different options but does not "actually experiment by installing wire in different locations." *Id.* The Comptroller explains that, although using computer-aided simulation and modeling could in some cases be an experimental process, in this example, the firm's use of the modeling is not a "process of experimentation" because the firm did not "evaluate different alternatives in a scientific manner." *Id.*

Once again, the firm's activities are not tax-favored R&D because the activities are an ordinary part of the deliberations involved in designing and constructing a building. There is no systematic experimentation that could lead to new insights about the way electrical systems perform. *See* 26 C.F.R. § 1.41-4(a)(5) (defining a process of experimentation). The construction firm simply found a design that worked for the project at hand. As a result, this example, like the previous example, maintains the line drawn by the governing statutes between ordinary construction activities and R&D. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements).

**E. Shopping for technology is not a "process of experimentation."**

The R&D rules also give examples involving oil-and-gas production. In one of those examples, an oil-and-gas operator "select[s] technology from existing commercially available options to use in its horizontal drilling program." 34 Tex. Admin. Code §§ 3.340(c)(1)(D)(vii)(VII), 3.599(c)(1)(D)(vii)(VII). As the R&D rules explain, though, shopping for technology is not the same as conducting an experiment. *Id.*

A "process of experimentation" must involve "the development or improvement of a business component." 26 C.F.R. § 1.41-4(a)(5). But shopping is the process of selecting and acquiring property that *someone else* has developed or improved. Moreover, a "process of experimentation" must "fundamentally rely on the principles of the physical or biological sciences, engineering, or computer science." *Id.* Although shopping for something technological can certainly involve some expertise, it does not put the principles of science and engineering to work.

This example thus upholds the requirement of the governing statutes that in order to receive an R&D tax break a taxpayer must actually develop or improve a business component—not just shop for one. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements).

**F. Using existing technology is not a "process of experimentation."**

In another example involving oil-and-gas production, an operator uses its own existing horizontal-drilling technology and method to drill in a new formation. 34 Tex. Admin. Code §§ 3.340(c)(1)(D)(vii)(VII–VIII), 3.599(c)(1)(D)(vii)(VII–VIII). The R&D rules explain that this activity is not a "process of experimentation" because the operators merely used technology and methods already in existence. *Id.*

Simply using an existing technology or method is not "development or improvement" of that technology because it does not enhance or add anything to the technology. *See* 26 C.F.R. § 1.41-4(a)(5) (defining "process of experimentation"). In fact, it does not affect the technology at all.

Because the governing statutes require "the development or improvement of a business component," this example merely explains that requirement in furtherance

of the statutes' objectives. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements).

### G. Simple trial and error, brainstorming, and reverse engineering are not processes of experimentation.

Because the Comptroller cannot possibly give taxpayers examples of every activity that may or may not constitute a "process of experimentation," the Comptroller has also provided taxpayers with some generalized guidance regarding what activities are or are not experimental processes.

The R&D rules explain that "[n]on experimental methods, such as simple trial and error, brainstorming, or reverse engineering, are not considered a process of experimentation." 34 Tex. Admin. Code §§ 3.340(c)(1)(D)(v), 3.599(c)(1)(D)(v). This stands to reason. Trial and error and brainstorming are used in just about every kind of work. For example, the composition of this very motion for summary judgment involved quite a bit of trial and error and brainstorming. But that does not make it a process of experimentation.

Reverse engineering is also not a process of experimentation because, by definition, it is taking something that already exists and deconstructing it in order to copy it. *Reverse engineer*, MERRIAM-WEBSTER DICTIONARY ("to disassemble and examine or analyze in detail (a product or device) to discover the concepts involved in manufacture usually in order to produce something similar"). Copying someone else's work is not experimentation.

Thus, the Comptroller's explanation that simple trial and error, brainstorming, and reverse engineering are not processes of experimentation is

simply a reminder to taxpayers that the R&D tax breaks apply to activities that innovate through scientific and systematic processes—as is required by the governing statutes. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements).

### H. Modifying a horizontal-drilling program based on drilling conducted for a particular customer is "adaptation of an existing business component."

Even if an activity passes the Four Part Test, the activity could be excluded from the definition of "qualified research" if, for example, it is "related to the adaptation of an existing business component to a particular customer's requirement or need." 26 U.S.C. § 41(d)(4)(B).

One example the Comptroller gives of an "adaptation of an existing business component" relates, once again, to horizontal drilling for oil and gas. 34 Tex. Admin. Code §§ 3.340(d)(2)(F), 3.599(d)(2)(F).[4] In this example, an oil-and-gas operator drills several horizontal wells in a formation until the operator's customer is satisfied with the economic results of the drilling. *Id.* The operator modifies its horizontal-drilling program as a result. *Id.*

The Comptroller explains that the operator's "activities to identify a horizontal drilling process" are an "adaptation of an existing business component" because the activities "did not involve creating a new or improved business component." *Id.* Moreover, the operator's activities involved an existing business component and were

[4] Ryan, LLC has challenged the entirety of 34 Tex. Admin. Code sections 3.340(d)(2) and 3.599(d)(2). Besides subsections 3.340(d)(2)(F) and 3.599(d)(2)(F), however, those sections either are identical to the incorporated federal statutes and regulations or favor qualification for the exemption or credit.

prompted by a customer's needs. *Id.* As such, the operator's activities were, per the statutes, quite literally "related to the adaptation of an existing business component to a particular customer's requirement or need." 26 U.S.C. § 41(d)(4)(B); *see Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements).

### I. Research involving the use of an item for which the taxpayer has claimed the manufacturing exemption is "research after commercial production."

Another of the statutes' exclusions from "qualified research" is for "any research conducted after the beginning of commercial production of the business component" to which the research relates. 26 U.S.C. § 41(d)(4)(A). The Comptroller has advised taxpayers that if a taxpayer claims the sales-tax manufacturing exemption for an item under Texas Tax Code section 151.318, the Comptroller will consider any activities that involve the use of that item to be "research after commercial production." 34 Tex. Admin. Code §§ 3.340(d)(1)(B)(vii), 3.599(d)(1)(B)(vii).[5] This portion of the R&D rules provides a bright-line test, which benefits both taxpayers and auditors. *See DuPont Photomasks, Inc. v. Strayhorn*, 219 S.W.3d 414, 422 (Tex. App.—Austin 2006, pet. denied) (upholding "bright line" rule).

As the Comptroller explains, for an item to qualify for the manufacturing exemption, the taxpayer must use the item "in or during the actual manufacturing, processing, or fabricating of tangible personal property for ultimate sale." 46 Tex. Reg. at 7051, 7064; *see* Tex. Tax Code § 151.318 (providing manufacturing

[5] Ryan, LLC has challenged the entirety of 34 Tex. Admin. Code sections 3.340(d)(1)(B) and 3.599(d)(1)(B). Besides subsections 3.340(d)(1)(B)(vii) and 3.599(d)(1)(B)(vii), however, those sections are identical to the incorporated federal statutes and regulations.

exemption). When a taxpayer claims the manufacturing exemption for an item, the taxpayer is informing the Comptroller that it is using the item in commercial production. The taxpayer cannot then make an about-face and claim that its use of the item was for research that was *not* a part of commercial production.

This policy streamlines tax administration by identifying the inconsistency between the manufacturing exemption and the R&D tax breaks and informs taxpayers that if they submit a tax report that includes these inconsistent positions, the tax report will have to be reevaluated. *See DuPont Photomasks, Inc.*, 219 S.W.3d at 422 (upholding "bright line" rule). As such, the policy does not "contravene" the governing statutes, "run counter" to the objectives of the statutes, or impose "additional burdens, conditions, or restrictions" beyond those of the statutes. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements).

### J. Research on computer chips that is conducted after the chips have been ordered is "research after commercial production."

Among the Comptroller's examples of activities that may or may not be "research after commercial production" is an example involving integrated circuits, also known as "computer chips." In this example, a computer-chip manufacturer works with a potential customer to develop a chip acceptable for use in the customer's products. 34 Tex. Admin. Code §§ 3.340(d)(1)(E)(iii), 3.599(d)(1)(E)(iii). If an acceptable chip is developed, the customer will order a delivery of the chips. *Id.* Research that occurs *before* the order would *not* be excluded from "qualified research," but research conducted *after* the order *would be* excluded as "research after commercial production." *Id.* Again, the R&D rules provide a bright line benefiting

both taxpayers and auditors. *See DuPont Photomasks, Inc.*, 219 S.W.3d at 422 (upholding "bright line" rule).

While the chip manufacturer is developing the product and no order has been placed for it, there is no commercial production, but once an order is placed, commercial production will begin, and any research occurring at that point would be "after commercial production." Thus, the Comptroller's rules maintain the line drawn by the statutes between research occurring before and after commercial production of a business component. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements).

### K. An item that is not used for qualified research cannot be a "qualified research expense."

When an activity constitutes "qualified research," certain expenses associated with that research—called, surprisingly enough, "qualified research expenses"—are used to calculate the amount of the taxpayer's R&D franchise-tax credit. Tex. Tax Code § 171.654(a). The Comptroller has informed taxpayers that if a taxpayer claims a sales-tax exemption for an item and the exemption is for a use of the item that is not in qualified research, the expense of the item cannot be used to calculate the R&D franchise-tax credit. 34 Tex. Admin. Code § 3.599(b)(8)(A)(iii).

For example, the manufacturing exemption (discussed in section IV.I., above) and the sale-for-resale exemption are inconsistent with the R&D franchise-tax credit because those exemptions require the exempted items to be "used in specific ways that are not compatible with the item's use in qualified research." 46 Tex. Reg. at 7062; *see* 34 Tex. Admin. Code § 3.599(b)(8)(A)(iii)(I)(-a-) (addressing incompatible

exemptions). The manufacturing exemption requires items to be used in manufacturing, not research, and the sale-for-resale exemption requires items to be held for resale, which is also inconsistent with research. Tex. Tax Code §§ 151.318 (providing manufacturing exemption), 151.006 (providing sale-for-resale exemption).

With this portion of the R&D franchise-credit rule, the Comptroller is streamlining tax administration by recognizing situations in which expenses will never be "qualified research expenses" and advising taxpayers accordingly. Thus, rather than "contravening" the governing statutes, "running counter" to the statutes' objectives, or imposing "additional burdens, conditions, or restrictions" beyond those of the statutes, the Comptroller's rule actually enables efficient tax administration of those statutes. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements); *DuPont Photomasks, Inc.*, 219 S.W.3d at 422 (upholding "bright line" rule).

## V. The rules' effective dates are the same as the statutes' effective dates.

HB 800, the legislation that created both the R&D tax exemption and credit, went into effect January 1, 2014. Act of May 21, 2013 § 7. Faithful to their governing statutes, both rules 3.340 and 3.599 are effective for taxes beginning that very same date. 34 Tex. Admin. Code §§ 3.340(i)(1), 3.599(a)(1). *See Sharp v. Park 'N Fly of Tex., Inc.*, 969 S.W.2d 572, 578 (Tex. App.—Austin 1998, pet. denied) (upholding rule that was made applicable beginning the date its governing statute went into effect).

Rule 3.599 states that it applies to "franchise tax reports originally due on or after January 1, 2014." *Id.* § 3.599(a)(1). That language tracks the effective-date language for Subchapter M of Chapter 171 of the Tax Code, which states that the

subchapter "applies only to a report originally due on or after the effective date [January 1, 2014] of this Act." Act of May 21, 2013 § 6. Thus, rather than contravening statutory language, rule 3.599 actually mirrors the statute with regard to its effective date. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements). For that reason, the rule also does not "run counter" to the statute's objectives or "impose burdens" beyond those in the statute. *See id.*

The same is true for rule 3.340. The enacting legislation for Tax Code section 151.3182, which governs rule 3.340, states that the exemption "does not affect tax liability accruing before the effective date [January 1, 2014] of this Act." Act of May 21, 2013 § 5. In line with the statute, rule 3.340 provides that the rule applies to "the sale, storage, or use of tangible personal property occurring on or after January 1, 2014." 34 Tex. Admin. Code § 3.340(i)(1). Like rule 3.599, rule 3.340 exactly tracks its governing statute's effective date and thus does not "contravene" the statute's language, "run counter" to the statute's objectives, or "impose burdens" beyond those contained in the statute. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 569 (listing validity elements).

## VI. The rules are not unconstitutionally retroactive.

In addition to its statutory rule challenges, Ryan, LLC has brought constitutional challenges to the R&D rules. One of Ryan, LLC's complaints is that the rules' effective-date language is unconstitutionally retroactive. Orig. Pet. ¶¶ 41–44.

For a portion of a rule to be voided as unconstitutionally retroactive, "mere retroactivity is not sufficient." *Robinson v. Crown Cork & Seal Co., Inc.*, 335 S.W.3d 126, 139 (Tex. 2010). Instead, before taking the extraordinary step of invalidating a

rule on that score, the courts consider three factors: (1) "the nature and strength of the public interest served," (2) "the nature of the prior right impaired," and (3) "the extent of the impairment." *Id.* at 145.[6] These factors must be considered "in light of the prohibition's dual objectives": (a) protecting "reasonable, settled expectations" and (b) protecting against abuses of lawmaking power. *Id.* at 139.

Ryan, LLC's retroactivity arguments are misplaced: the R&D rules are not retroactive changes in the law because they are not changes in the law at all. Instead, the rules are "expositions of exiting Comptroller policy" regarding the R&D tax breaks. 46 Tex. Reg. at 7052, 7061. That policy has conformed to the statutes that created the tax breaks since the day the statutes went into effect. *See Park 'N Fly of Tex., Inc.*, 969 S.W.2d at 578 (upholding rule as "not unconstitutionally retroactive" because it was a "proper construction" of its governing statute).

Even if the rules could be considered changes in the law, the rules do not disturb "settled expectations" regarding the R&D tax breaks. *See Robinson*, 335 S.W.3d at 139. (setting forth objectives of the prohibition on retroactive laws). Taxpayers have been on notice of the limited scope of the R&D tax breaks since the statutes were enacted, and the rules do not—and cannot—change the scope of the statutes. *See Tex. Bd. of Chiropractic Exam'rs*, 616 S.W.3d at 568 (explaining that an agency rule must be "consistent with the meaning of the terms in the Act").

[6] *Robinson* applied the test for unconstitutional retroactivity to a statute. The analysis in this motion adapts *Robinson*'s analysis to administrative rules. *See Grocers Supply Co., Inc. v. Sharp*, 978 S.W.2d 638, 643 (Tex. App.—Austin 1998, pet.denied) ("[T]he same principle [unconstitutional retroactivity] applies to administrative rules.").

Furthermore, where there may be questions or disputes about the exact scope of the statutes, the applicability of the R&D tax breaks is certainly not "settled."

Moreover, the nature of the right addressed by the R&D rules is entitlement to a statutorily created tax break—a gift from the Legislature that could be withdrawn at any time. *See Robinson*, 335 S.W.3d at 145 (providing retroactivity factors), 147–48 (noting that statutorily created rights can be modified retroactively). And the extent to which the R&D rules can modify that statutorily created right is negligible—if it exists at all. *See id.* at 145 (providing retroactivity factors).

Instead, the rules serve the public interest by providing guidance to taxpayers regarding what activities qualify for the R&D tax breaks and by enforcing the bar set by the R&D statutes for what activities qualify as R&D in order to make Texas economically competitive in the field of research and development. *See id.* (providing "public interest" as a retroactivity factor). As a result, the R&D rules do not violate the Texas Constitution's prohibition of retroactive laws.

## VII. The rules are not "harsh and oppressive."

Nor do the rules violate 14th Amendment due process. To violate due process, not only would the rules have to be changes in the law that disturb settled expectations but the rules would additionally have to be "so harsh and oppressive as to transgress the constitutional limitation." *United States v. Hemme*, 476 U.S. 558, 568–69 (1986). As guidance intended to help taxpayers navigate the ins and outs of the R&D tax breaks, the rules are not harsh and oppressive and certainly not unconstitutionally so.

## PRAYER

Defendants Glenn Hegar, Comptroller of Public Accounts for the State of Texas, and Ken Paxton, Attorney General of the State of Texas, ask the Court to declare the disputed portions of sections 3.340 and 3.599 of volume 34 of the Texas Administrative Code valid.

Respectfully submitted,

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## CERTIFICATE OF SERVICE

I hereby certify that on the 25th day of May, 2022 a true and correct copy of the foregoing was served on all parties and counsel of record listed below via e-service and/or electronic mail:

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# Exhibit 1

The Comptroller of Public Accounts proposes amendments to §3.340, concerning qualified research. The comptroller amends this section to provide guidance regarding the research and development sales tax exemption.

The comptroller proposes to amend the definition of Internal Revenue Code (IRC) in subsection (a)(6) to explain which federal Treasury Regulations are applicable to the 2011 federal income tax year. The comptroller has reconsidered comments received during the 2021 rulemaking process and agrees that the adopted definition is too restrictive. The amended definition includes any Treasury Regulation that a taxpayer could have applied to the 2011 federal income tax year. The amended definition also includes specific examples of Treasury Regulations applicable to the 2011 federal income tax year.

The comptroller proposes to amend subsection (d)(5) to remove items that are inconsistent with the changes made to the definition of IRC. The comptroller reletters subparagraph (C) accordingly.

Brad Reynolds, Chief Revenue Estimator, has determined that during the first five years that the proposed amended rule is in effect, the rule: will not create or eliminate a government program; will not require the creation or elimination of employee positions; will not require an increase or decrease in future legislative appropriations to the agency; will not require an increase or decrease in fees paid to the agency; will not increase or decrease the number of individuals subject to the rule's applicability; and will not positively or adversely affect this state's economy.

Mr. Reynolds also has determined that the proposed amended rule would benefit the public by improving the clarity and implementation of the section. This rule is proposed under Tax Code, Title 2, and does not require a statement of fiscal implications for small businesses or rural communities. The proposed amendments would have no significant fiscal impact on the state

government, units of local government, or individuals. There would be no significant anticipated economic cost to the public.

You may submit comments on the proposal to Jenny Burleson, Director, Tax Policy Division, P.O. Box 13528 Austin, Texas 78711 or to the email address: tp.rule.comments@cpa.texas.gov. The comptroller must receive your comments no later than 30 days from the date of publication of the proposal in the *Texas Register*.

The amendments are proposed under Tax Code, §111.002 (Comptroller's Rules; Compliance; Forfeiture), which provides the comptroller with the authority to prescribe, adopt, and enforce rules relating to the administration and enforcement of the provisions of Tax Code, Title 2 (State Taxation).

The amendments implement Tax Code, §151.3182 (Certain Property Used in Research and Development Activities; Reporting of Estimates and Evaluation).

<rule>

§3.340. Qualified Research.

(a) Definitions. The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Business component--A business component is any product, process, computer software, technique, formula, or invention, which is to be held for sale, lease, or license, or used by the taxpayer in a trade or business of the taxpayer.

(2) Combined group--Taxable entities that are part of an affiliated group engaged in a unitary business and that are required to file a combined group report under Tax Code, §171.1014 (Combined Reporting; Affiliated Group Engaged in Unitary Business). For more information about combined groups, see §3.590 of this title (relating to Margin: Combined Reporting).

(3) Directly used in qualified research--Having an immediate use in qualified research activity, without an intervening or ancillary use.

(4) Four-Part Test--The test described in IRC, §41(d) (Qualified research defined) that determines whether research activities are qualified research. The four parts of the test are the Section 174 Test, the Discovering Technological Information Test, the Business Component Test, and the Process of Experimentation Test.

(5) Franchise tax research and development activities credit--A credit against franchise tax for qualified research activities that is allowed under Tax Code, Chapter 171, Subchapter M (Tax Credit for Certain Research and Development Activities).

(6) Internal Revenue Code (IRC)--The Internal Revenue Code of 1986 in effect on December 31, 2011, excluding any changes made by federal law after that date, but including any regulations adopted under the code applicable to the tax year to which the provisions of the code in effect on that date applied. A regulation adopted after December 31, 2011 is only included in this term to the extent that [the regulation requires] a taxpayer could have applied [to apply] the regulation to the 2011 federal income tax year. Examples of treasury regulations included in this definition are:

(A) Treasury Regulation, §1.174-2 (Definition of research and experimental expenditures) as contained in 26 CFR part 1 (revised as of July 21, 2014);

(B) Treasury Regulation, §1.41-4 (Qualified research for expenditures paid or incurred in taxable years ending on or after December 31, 2003) as contained in 26 CFR part 1 (revised as of November 3, 2016), except for paragraph (c)(6) (Internal use software). For paragraph (c)(6), as provided in the last sentence of Treasury Regulation, §1.41-4 (e) (Effective/applicability dates), taxpayers may elect to follow either of the following versions of paragraph (c)(6):

(i) Treasury Regulation, §1.41-4(c)(6) (Internal-use computer software) as contained in 26 CFR part 1 (revised as of April 1, 2003) and IRB 2001-5; or

(ii) Proposed Treasury Regulation, §1.41-4(c)(6) (Internal use software for taxable years beginning on or after the December 31, 1985) as contained in IRB 2002-4.

(7) Qualified research--This term has the meaning given in IRC, §41(d), except that the research must be conducted in Texas. Qualified research activities must satisfy each part of the Four-Part Test.

(8) Registrant--A taxpayer who holds a Texas Qualified Research Registration Number issued by the comptroller.

(9) Registration number--The Texas Qualified Research Registration Number issued by the comptroller to a taxpayer who submits the Texas Registration for Qualified Research and Development Sales Tax Exemption form.

(10) Taxable entity--This term has the meaning given by Tax Code, §171.0002 (Definition of Taxable Entity).

(b) Depreciable tangible personal property used in qualified research.

(1) Subject to paragraph (2) of this subsection, the sale, storage, or use of tangible personal property is exempt from Texas sales and use tax if the property:

(A) has a useful life that exceeds one year;

(B) is subject to depreciation under:

(i) generally accepted accounting principles; or

(ii) IRC, §167 (Depreciation) or §168 (Accelerated cost recovery system); and

(C) is sold, leased, rented to, stored, or used by a taxpayer engaged in qualified research; and

(D) is directly used in qualified research. Depreciable tangible personal property is directly used in qualified research if it is used in the actual performance of activities that are part of the qualified research. For example, machinery, equipment, computers, software, tools, laboratory furniture such as desks, laboratory tables, stools, benches, and storage cabinets, and other tangible personal property used by personnel in the process of experimentation are directly used in qualified research. Tangible personal property is not directly used in qualified research if it is used in ancillary or support activities such as administration, maintenance, marketing, distribution, or transportation activities, or if it is used in activities excluded from qualified research. For example,

machinery and equipment used by administrative, accounting, or clerical personnel are not directly used in qualified research.

(2) A taxpayer may not claim the exemption if that taxpayer will, as a taxable entity or as a member of a combined group, claim a franchise tax research and development activities credit on a franchise tax report based on the accounting period during which the depreciable tangible personal property used in qualified research would first be subject to Texas sales or use tax.

(3) A claim for a carryforward of an unused franchise tax research and development activities credit under Tax Code, §171.659 (Carryforward) does not affect a taxpayer's ability, as a taxable entity or as a member of a combined group, to claim the sales and use tax exemption provided by paragraph (1) of this subsection.

(4) Property satisfies paragraph (1)(B) of this subsection if it is subject to depreciation under generally accepted accounting principles, IRC, §167, or IRC, §168 even if the taxpayer does not actually depreciate that property.

(5) Property satisfies paragraph (1) of this subsection only if it is tangible personal property subject to depreciation at the time a taxpayer purchases it. For example, assume a taxpayer purchases tangible personal property that is not subject to depreciation. The taxpayer later incorporates that property into real property that is subject to depreciation. Although the real property with the incorporated tangible personal property is subject to depreciation, the tangible personal property, on its own, was never subject to depreciation. The tangible personal property does not satisfy paragraph (1) of this subsection because it was never subject to depreciation as tangible personal property.

(6) A taxpayer has the burden of establishing its entitlement to the exemption by clear and convincing evidence, including proof that the research activities meet the definition of qualified research and applying the shrink-back rule described in subsection (c)(3) of this section. All qualified research activities must be supported by contemporaneous business records.

(7) An Internal Revenue Service audit determination of eligibility for the federal research and development credit under IRC, §41 (Credit for increasing research activities), whether that determination is that the taxpayer qualifies or does not qualify for the federal research and development credit, is not binding on the comptroller's determination of eligibility for the exemption.

(c) Application of the Four-Part Test. Research activities must satisfy each part of the Four-Part Test, as described in paragraph (1) of this subsection, to be qualified research.

(1) Four-Part Test.

(A) Section 174 Test. Expenditures related to the research must be eligible to be treated as expenses under IRC, §174 (Research and experimental expenditures).

(i) Expenditures are eligible to be treated as expenses under IRC, §174, if the expenditures are incurred in connection with the taxpayer's trade or business and represent a research and development cost in the experimental or laboratory sense. 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.

(ii) For the purposes of this test, the term "product" includes any pilot model, process, formula, invention, technique, patent, or similar property, and includes products to be used by the taxpayer in its trade or business as well as products to be held for sale, lease, or license.

(iii) Expenditures for the following are not eligible to be treated as expenses under IRC, §174:

(I) land;

(II) depreciable property;

(III) the ordinary testing or inspection of materials or products for quality control;

(IV) efficiency surveys;

(V) management studies;

(VI) consumer surveys;

(VII) advertising or promotions;

(VIII) the acquisition of another's patent, model, production, or process; or

(IX) research in connection with literary, historical, or similar projects.

(iv) Although expenditures for depreciable property are not eligible to be treated as expenditures under IRC, §174, those expenditures qualify for the purposes of the sales tax research and

development exemption, provided that the research activities otherwise satisfy the Four-Part Test and are not excluded under subsection (d) of this section.

(B) Discovering Technological Information Test. The research must be undertaken for the purpose of discovering information that is technological in nature.

(i) Research is undertaken for the purpose of discovering technological information if it is intended to eliminate uncertainty concerning the development or improvement of a business component. Uncertainty exists if the information available to the taxpayer does not establish the capability or method for developing or improving the business component, or the appropriate design of the business component.

(ii) In order to satisfy the requirement that the research is technological in nature, the process of experimentation used to discover information must fundamentally rely on principles of the physical or biological sciences, engineering, or computer science. A taxpayer may employ existing technologies and may rely on existing principles of the physical or biological sciences, engineering, or computer science to satisfy this requirement.

(iii) A determination that research is undertaken for the purpose of discovering information that is technological in nature does not require that the taxpayer:

(I) seek to obtain information that exceeds, expands, or refines the common knowledge of skilled professionals in the particular field of science or engineering in which the taxpayer is performing the research; or

(II) succeed in developing a new or improved business component.

(C) Business Component Test. The application of the technological information for which the research is undertaken must be intended to be useful in the development of a new or improved business component of the taxpayer, which may include any product, process, computer software, technique, formula, or invention that is to be held for sale, lease, or license, or used by the taxpayer in a trade or business of the taxpayer.

(i) If a taxpayer provides a service to a customer, the service provided to that customer is not a business component because a service is not a product, process, computer software, technique, formula, or invention. However, a product, process, computer software, technique, formula, or invention used by a taxpayer to provide services to its customers may be a business component.

(ii) A design is not a business component because a design is not a product, process, computer software, technique, formula, or invention. While uncertainty as to the appropriate design of a business component is a qualifying uncertainty for the Section 174 Test and the Discovering Technological information test, the design itself is not a business component. For example, the design of a structure is not a business component, although the structure itself may be a business component. Similarly, a blueprint or other plan used to construct a structure that embodies a design is not a business component.

(D) Process of Experimentation Test. Substantially all of the research activities must constitute elements of a process of experimentation for a qualified purpose. A process of experimentation is undertaken for a qualified purpose if it relates to a new or improved function, performance, reliability, or quality of a business component. Any research relating to style, taste, cosmetic, or seasonal design factors does not satisfy the Process of Experimentation Test.

(i) A process of experimentation is a process designed to evaluate one or more alternatives to achieve a result where the capability or the method of achieving that result, or the appropriate design of that result, is uncertain as of the beginning of the taxpayer's research activities.

(ii) A process of experimentation must:

(I) be an evaluative process and generally should be capable of evaluating more than one alternative; and

(II) fundamentally rely on the principles of the physical or biological sciences, engineering, or computer science and involve:

(-a-) the identification of uncertainty concerning the development or improvement of a business component;

(-b-) the identification of one or more alternatives intended to eliminate that uncertainty; and

(-c-) the identification and the conduct of a process of evaluating the alternatives through, for example, modeling, simulation, or a systematic trial and error methodology.

(iii) A taxpayer may undertake a process of experimentation if there is no uncertainty concerning the taxpayer's capability or method of achieving the desired result so long as the appropriate design of the desired result is uncertain as of the beginning of the taxpayer's research activities. Uncertainty concerning the development or improvement of the business component (e.g., its appropriate design) does not establish that all activities undertaken to achieve that new or improved business component constitute a process of experimentation.

(iv) The substantially all requirement of this subparagraph is satisfied only if 80% or more of a taxpayer's research activities, measured on a cost or other consistently applied reasonable basis constitute elements of a process of experimentation that relates to a new or improved function, performance, reliability, or quality. The substantially all requirement is satisfied even if the remainder of a taxpayer's research activities with respect to the business component do not constitute elements of a process of experimentation that relates to a new or improved function, performance, reliability, or quality.

(v) Non-experimental methods, such as simple trial and error, brainstorming, or reverse engineering, are not considered a process of experimentation.

(vi) The following are factors that may be considered in determining whether a trial and error methodology is experimental systematic trial and error or non-experimental simple trial and error. Evidence provided to determine the type of trial and error is not limited to these factors, nor is evidence of each factor required. These factors only apply to determining whether a process of experimentation is systematic trial and error. Systematic trial and error is not the only qualifying process of experimentation. These factors are:

(I) whether the person conducting the trial and error methodology stops testing alternatives once a single acceptable result is found or continues to find multiple acceptable results for comparison;

(II) whether all the results of the trial and error methodology are recorded for evaluation;

(III) whether there is a written procedure for conducting the trial and error methodology; and

(IV) whether there is a written procedure for evaluating the results of the trial and error methodology.

(vii) Examples.

(I) Example 1. A taxpayer is engaged in the business of developing and manufacturing widgets. The taxpayer wants to change the color of its blue widget to green. The taxpayer obtains several different shades of green paint from various suppliers. The taxpayer paints several sample widgets, and surveys its customers to determine which shade of green its customers prefer. The taxpayer's activities to change the color of its blue widget to green do not satisfy the Process of Experimentation Test because its activities are not undertaken for a qualified purpose. All of the taxpayer's research activities are related to style, taste, cosmetic, or seasonal design factors.

(II) Example 2. The taxpayer in Example 1 chooses one of the green paints. The taxpayer obtains samples of the green paint from a supplier and determines that it must modify its painting process to accommodate the green paint because the green paint has different characteristics from other paints it has used. The taxpayer obtains detailed data on the green paint from its paint supplier. The taxpayer also consults with the manufacturer of its paint spraying machines. The manufacturer informs the taxpayer that it must acquire new nozzles that operate with the green paint it wants to use because the current nozzles do not work with the green paint. The taxpayer tests the new nozzles, using the green paint, to ensure that they work as specified by the manufacturer of the paint spraying machines. The taxpayer's activities to modify its painting process are not qualified research. The taxpayer did not conduct a process of evaluating alternatives in order to eliminate uncertainty regarding the modification of its painting process. Rather, the manufacturer of the paint machines eliminated the taxpayer's uncertainty regarding the modification of its painting process. The taxpayer's activities to test the nozzles to determine if the nozzles work as specified by the manufacturer of the paint spraying machines are in the nature of routine or ordinary testing or inspection for quality control.

(III) Example 3. A taxpayer is engaged in the business of manufacturing food products and currently manufactures a large-shred version of a product. The taxpayer seeks to modify its current production line to permit it to manufacture both a large-shred version and a fine-shred version of one of its food products. A smaller, thinner shredding blade capable of producing a fine-shred version of the food product is not commercially available. Thus, the taxpayer must develop a new shredding blade that can be fitted onto its current production line. The taxpayer is uncertain concerning the design of the new shredding blade because the material used in its existing blade breaks when machined into smaller, thinner blades. The taxpayer engages in a systematic trial and error process of analyzing various blade designs and materials to determine whether the new shredding blade must be constructed of a different material from that of its existing shredding blade and, if so, what material will best meet its functional requirements. The taxpayer's activities to modify its current production line by developing the new shredding blade satisfy the Process of Experimentation Test. Substantially all of the taxpayer's activities constitute elements of a process of experimentation because it evaluated alternatives to achieve a result where the method of achieving that result, and the appropriate design of that result, were uncertain as of the beginning of the taxpayer's research activities. The taxpayer identified uncertainties related to the development of a business component, and identified alternatives intended to eliminate these uncertainties. Furthermore, the taxpayer's process of evaluating identified alternatives was technological in nature and was undertaken to eliminate the uncertainties.

(IV) Example 4. A taxpayer is in the business of designing, developing and manufacturing automobiles. In response to government-mandated fuel economy requirements, the taxpayer seeks to update its current model vehicle and undertakes to improve aerodynamics by lowering the hood of its current model vehicle. The taxpayer determines, however, that lowering the hood changes the air flow under the hood, which changes the rate at which air enters the engine through the air intake system, which reduces the functionality of the cooling system. The taxpayer's engineers are uncertain how to design a lower hood to obtain the increased fuel economy, while maintaining the

necessary air flow under the hood. The taxpayer designs, models, simulates, tests, refines, and re-tests several alternative designs for the hood and associated proposed modifications to both the air intake system and cooling system. This process enables the taxpayer to eliminate the uncertainties related to the integrated design of the hood, air intake system, and cooling system. Such activities constitute 85% of its total activities to update its current model vehicle. The taxpayer then engages in additional activities that do not involve a process of evaluating alternatives in order to eliminate uncertainties. The additional activities constitute only 15% of the taxpayer's total activities to update its current model vehicle. In this case substantially all of the taxpayer's activities constitute elements of a process of experimentation because it evaluated alternatives to achieve a result where the method of achieving that result, and the appropriate design of that result, were uncertain as of the beginning of its research activities. The taxpayer identified uncertainties related to the improvement of a business component and identified alternatives intended to eliminate these uncertainties. Furthermore, the taxpayer's process of evaluating the identified alternatives was technological in nature and was undertaken to eliminate the uncertainties. Because 85% of the taxpayer's activities to update its current model vehicle constitute elements of a process of experimentation that relates to a new or improved function, performance, reliability, or quality, all of its activities satisfy the Process of Experimentation Test.

(V) Example 5. A taxpayer is in the business of providing building and construction services, including the construction of warehouses, strip malls, office buildings, and other commercial structures. The taxpayer is engaged to construct a structure in a part of Texas where foundation problems are common. The taxpayer's engineers were uncertain how to design the structure to ensure stability of the structure's foundation because the taxpayer had never designed a structure in a similar location. The taxpayer's engineers used their professional experience and various building codes to determine how to design the foundation based on the conditions at the construction site. The engineers chose to use piles in the foundation. The taxpayer constructed a test pile on site to confirm whether this would work in the conditions present on the construction

site. This test pile would become part of the foundation of the structure regardless of whether the engineers had to redesign the additional piles required for the foundation. The taxpayer's activities in using professional experience and business codes to design the foundation did not meet the Process of Experimentation Test because the activities did not resolve technological uncertainties through an experimental process. Constructing the test pile also did not meet the Process of Experimentation Test because it was not an evaluative process.

(VI) Example 6. A taxpayer is in the business of providing building and construction services, including the construction of warehouses, strip malls, office buildings, and other commercial structures. For one of its projects to construct an office building, the taxpayer was uncertain how to design the layout of the electrical systems. The taxpayer's employees held on-site meetings to discuss different options, such as running the wire under the floor or through the ceiling, but did not actually experiment by installing wire in different locations. The taxpayer used computer-aided simulation and modeling to produce the final electrical system layout. While in some cases computer-aided simulation and modeling may be an experimental process, in this case, it was not an experimental process because the taxpayer did not use the computer-aided simulation and modeling to evaluate different alternatives in a scientific manner. The taxpayer's activities did not satisfy the Process of Experimentation Test because it did not conduct an experimental process of evaluating alternatives to eliminate a technological uncertainty.

(VII) Example 7. A taxpayer is an oil and gas operator that recently acquired rights to drill in an area in which it had not previously operated. The taxpayer decided to use horizontal drilling in this area, but it had never drilled a horizontal well and was uncertain how to successfully execute the horizontal drilling. At the time the taxpayer began horizontal drilling, the technology to drill horizontal wells was established. The taxpayer selected technology from existing commercially available options to use in its horizontal drilling program. The taxpayer's activities did not satisfy

the Process of Experimentation Test because evaluating commercially available options does not constitute a process of experimentation.

(VIII) Example 8. A taxpayer is an oil and gas operator that recently acquired rights to drill in an area in which it had not previously operated. The taxpayer decided to use horizontal drilling in this area. The taxpayer had drilled a horizontal well before in a different formation and at different depths. However, it had never drilled a horizontal well in this formation or at the required depths and was uncertain how to successfully execute the horizontal drilling. The taxpayer utilized its existing technology to perform its horizontal drilling operations in this area and the existing technology was successful. The taxpayer's activities did not satisfy the Process of Experimentation Test because the taxpayer merely used its existing technology and did not perform any experimentation to evaluate alternative any drilling methods.

(IX) Example 9. A taxpayer sought to discover cancer immunotherapies. The taxpayer was uncertain as to the appropriate design of the proteins to be used as a drug candidate. The taxpayer identified several alternative protein constructs and used a process to test them. The taxpayer's process involved testing the constructs using in vitro functional assays and binding assays, and either modifying the designs or discarding them and repeating the previous steps. The taxpayer took the resulting products from the in vitro testing and tested the drug candidate in living organisms. This process evaluated the various alternatives identified by the taxpayer. The taxpayer's activities satisfied the Process of Experimentation Test.

(2) Application of the Four-Part Test to business components. The Four-Part Test is applied separately to each business component of the taxpayer. Any plant process, machinery, or technique for commercial production of a business component is treated as a separate business component from the business component being produced.

(3) Shrink-back rule. The Four-Part Test is first applied at the level of the discrete business component used by the taxpayer in a trade or business of the taxpayer. If the requirements of the Four-Part Test are not met at that level, then they are applied at the next most significant subset of elements of the business component. This shrinking back of the product continues until either a subset of elements of the product that satisfies the requirements of the Four-Part Test is reached, or the most basic element of the product is reached and such element fails to satisfy any part of the Four-Part Test.

(4) Software development as qualified research. In determining if software development activities constitute qualified research, the comptroller shall consider the facts and circumstances of each activity.

(A) Application of Four-Part Test to software development activities.

(i) A taxpayer must prove that a software development activity is qualified research and meets all the requirements of the Four-Part Test under paragraph (1) of this subsection, even if the activity is likely to qualify as described in subparagraph (B) of this paragraph.

(ii) A taxpayer may prove that a software development activity described as unlikely to qualify in subparagraph (C) of this paragraph, is qualified research by providing evidence that the activity meets all the requirements of the Four-Part Test under paragraph (1) of this subsection.

(B) Software development activities likely to qualify. Types of activities likely to qualify include, but are not limited to:

(i) developing the initial release of an application software product that includes new constructs, such as new architectures, new algorithms, or new database management techniques;

(ii) developing system software, such as operating systems and compilers;

(iii) developing specialized technologies, such as image processing, artificial intelligence, or speech recognition; and

(iv) developing software as part of a hardware product where the software interacts directly with that hardware in order to make the hardware/software package function as a unit.

(C) Software development activities unlikely to qualify. Types of activities unlikely to qualify include, but are not limited to:

(i) maintaining existing software applications or products;

(ii) configuring purchased software applications;

(iii) reverse engineering of existing applications;

(iv) performing studies, or similar activities, to select vendor products;

(v) detecting flaws and bugs directed toward the verification and validation that the software was programmed as intended and works correctly;

(vi) modifying an existing software business component to make use of new or existing standards or devices, or to be compliant with another vendor's product or platform;

(vii) developing a business component that is substantially similar in technology, functionality, and features to the capabilities already in existence at other companies;

(viii) upgrading to newer versions of hardware or software or installing vendor-fix releases;

(ix) re-hosting or porting an application to a new hardware such as from mainframe to PC, or software platform, such as Windows to UNIX, or rewriting an existing application in a new language, such as rewriting a COBOL mainframe application in C++;

(x) writing hardware device drivers to support new hardware, such as disks, scanners, printers, or modems;

(xi) performing data quality, data cleansing, and data consistency activities, such as designing and implementing software to validate data fields, clean data fields, or make the data fields consistent across databases and applications;

(xii) bundling existing individual software products into product suites, such as combining existing word processor, spreadsheet, and slide presentation software applications into a single suite;

(xiii) expanding product lines by purchasing other products;

(xiv) developing interfaces between different software applications;

(xv) developing vendor product extensions;

(xvi) designing graphic user interfaces;

(xvii) developing functional enhancements to existing software applications/products;

(xviii) developing software as an embedded application, such as in cell phones, automobiles, and airplanes;

(xix) developing software utility programs, such as debuggers, backup systems, performance analyzers, and data recovery;

(xx) changing from a product based on one technology to a product based on a different or newer technology; and

(xxi) adapting and commercializing technology developed by a consortium or open software group.

(d) Excluded research activities. Qualified research does not include the activities described in this subsection.

(1) Research after commercial production. Any research conducted after the beginning of commercial production of the business component.

(A) 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 taxpayer for the component's sale or use.

(B) The following activities are deemed to occur after the beginning of commercial production of a business component:

(i) preproduction planning for a finished business component;

(ii) tooling-up for production;

(iii) trial production runs;

(iv) troubleshooting involving detecting faults in production equipment or processes;

(v) accumulating data relating to production processes;

(vi) debugging flaws in a business component; and

(vii) any activities that involve the use of an item for which the taxpayer claimed the manufacturing exemption under Tax Code, §151.318.

(C) In cases involving development of both a product and a manufacturing or other commercial production process for the product, the research after commercial production exclusion applies separately for the activities relating to the development of the product and the activities relating to the development of the process. For example, even after a product meets the taxpayer's basic functional and economic requirements, activities relating to the development of the manufacturing process may still constitute qualified research, provided that the development of the process itself separately satisfies the requirements of this section, and the activities are conducted before the process meets the taxpayer's basic functional and economic requirements or is ready for commercial use.

(D) Clinical testing of a pharmaceutical product prior to its commercial production in the United States is not treated as occurring after the beginning of commercial production even if the product is commercially available in other countries. Additional clinical testing of a pharmaceutical product after a product has been approved for a specific therapeutic use by the Food and Drug Administration and is ready for commercial production and sale is not treated as occurring after the beginning of commercial production if such clinical testing is undertaken to establish new functional uses, characteristics, indications, combinations, dosages, or delivery forms for the product. A functional use, characteristic, indication, combination, dosage, or delivery form shall be considered new only if such functional use, characteristic, indication, combination, dosage, or delivery form must be approved by the Food and Drug Administration.

(E) Examples.

(i) Example 1. A taxpayer is a tire manufacturer and develops a new material to use in its tires. The taxpayer conducts research to determine the changes that will be necessary for it to modify its existing manufacturing processes to manufacture the new tire. The taxpayer determines that the new tire material retains heat for a longer period of time than the materials it currently uses for tires, and, as a result, the new tire material adheres to the manufacturing equipment during tread cooling. The taxpayer evaluates several alternatives for processing the treads at cooler temperatures to address this problem, including a new type of belt for its manufacturing equipment to be used in tread cooling. Such a belt is not commercially available. Because the taxpayer is uncertain of the belt design, it develops and conducts sophisticated engineering tests on several alternative designs for a new type of belt to be used in tread cooling until it successfully achieves a design that meets its requirements. The taxpayer then manufactures a set of belts for its production equipment, installs the belts, and tests the belts to make sure they were manufactured correctly. The taxpayer's research with respect to the design of the new belts to be used in its manufacturing of the new tire may be qualified research under the Four-Part Test. However, the

taxpayer's expenses to implement the new belts, including the costs to manufacture, install, and test the belts were incurred after the belts met the taxpayer's functional and economic requirements and are excluded as research after commercial production.

(ii) Example 2. For several years, a taxpayer has manufactured and sold a particular kind of widget. The taxpayer initiates a new research project to develop a new or improved widget. The taxpayer's activities to develop a new or improved widget are not excluded from the definition of qualified research under this paragraph. The taxpayer's activities relating to the development of a new or improved widget constitute a new research project to develop a new business component and are not considered activities conducted after the beginning of commercial production.

(iii) Example 3. For the purposes of this example, assume that the taxpayer's development of its products and manufacturing processes satisfies the Four-Part Test described by subsection (c) of this section and is not otherwise excluded under this subsection. A taxpayer is a manufacturer of integrated circuits for use in specific applications. The taxpayer develops various integrated circuit devices and associated manufacturing processes. The taxable entity assembles various product configurations for testing. After an internal process of testing, the taxpayer delivers a sample quantity of the integrated circuit to a potential customer for further testing. At the time when the samples are delivered to the taxpayer's potential customer, the potential customer has not agreed to purchase any integrated circuits from the taxpayer. This process of testing by both the taxpayer and its potential customer continues until an acceptable product and manufacturing process to produce the product is achieved. At that point, the taxpayer and the potential customer enter an agreement for the delivery of an order of the integrated circuits. In some cases, no acceptable product or manufacturing process is achieved, and no agreement is reached with the potential customer. Research activities occurring prior to an agreement are not considered activities conducted after the beginning of commercial production because the integrated circuits were not yet ready for commercial use. Any research that occurs after an agreement is reached are excluded

as activities conducted after the beginning of commercial production because the integrated circuits were ready for commercial use once the product and associated manufacturing process was accepted by the potential customer.

(2) Adaptation of existing business components. Activities relating 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. For example:

(A) Example 1. A taxpayer is a computer software development firm and owns a general ledger accounting software core program that it markets and licenses to customers. The taxpayer incurs expenditures in adapting the core software program to the requirements of one of its customers. Because the taxpayer's activities represent activities to adapt an existing software program to a particular customer's requirement or need, its activities are excluded from the definition of qualified research under this paragraph.

(B) Example 2. Assume that the customer from Example 1 pays the taxpayer to adapt the core software program to the customer's requirements. Because the taxpayer's activities are excluded from the definition of qualified research, the customer's payments to the taxpayer are not for qualified research and are not considered to be contract research expenses.

(C) Example 3. Assume that the customer from Example 1 uses its own employees to adapt the core software program to its requirements. Because the customer's employees' activities to adapt the core software program to its requirements are excluded from the definition of qualified research, the wages the customer paid to its employees do not constitute in-house research expenses.

(D) Example 4. A taxpayer manufactures and sells rail cars. Because rail cars have numerous specifications related to performance, reliability and quality, rail car designs are subject to extensive, complex testing in the scientific or laboratory sense. A customer orders passenger rail cars from the taxpayer. The customer's rail car requirements differ from those of the taxpayer's other existing customers only in that the customer wants fewer seats in its passenger cars and a higher quality seating material and carpet that are commercially available. The taxpayer manufactures rail cars meeting the customer's requirements. The rail car sold to the customer was not a new business component, but merely an adaptation of an existing business component that did not require a process of experimentation. Thus, the taxpayer's activities to manufacture rail cars for the customer are excluded from the definition of qualified research because the taxpayer's activities represent activities to adapt an existing business component to a particular customer's requirement or need.

(E) Example 5. A taxpayer is a manufacturer and undertakes to create a manufacturing process for a new valve design. The taxpayer determines that it requires a specialized type of robotic equipment to use in the manufacturing process for its new valves. Such robotic equipment is not commercially available. Therefore, the taxpayer purchases existing robotic equipment for the purpose of modifying it to meet its needs. The taxpayer's engineers identify uncertainty that is technological in nature concerning how to modify the existing robotic equipment to meet its needs. The taxpayer's engineers develop several alternative designs, conduct experiments using modeling and simulation in modifying the robotic equipment, and conduct extensive scientific and laboratory testing of design alternatives. As a result of this process, the taxpayer' s engineers develop a design for the robotic equipment that meets its needs. The taxpayer constructs and installs the modified robotic equipment on its manufacturing process. The taxpayer's research activities to determine how to modify the robotic equipment it purchased for its manufacturing process are not considered an adaptation of an existing business component.

(F) Example 6. A taxpayer is an oil and gas operator and has been engaged in horizontal drilling for the past ten years. Recently, the taxpayer was hired by a customer to drill in a formation. The drilling objectives included targeting an interval within that formation for horizontal drilling. The taxpayer was uncertain about the successful execution of the horizontal drilling because it had not previously drilled a horizontal well in that formation. The taxpayer was also uncertain about the economic results from the targeted interval. The taxpayer drilled several horizontal wells before its customer was satisfied with the economic results. The taxpayer modified its existing horizontal drilling program based on these results. The taxpayer's activities to identify a horizontal drilling process are excluded from the definition of qualified research because the activities consisted of adapting an existing business component, its existing horizontal drilling process, and did not involve creating a new or improved business component.

(G) Example 7. For the purposes of this example, assume that the taxpayer's development of its products satisfies the Four-Part Test described by subsection (c) of this section and is not otherwise excluded under this subsection. A taxpayer is a manufacturer of rigid plastic containers. The taxpayer contracts with major food and beverage manufacturers to provide suitable bottle and packaging designs. The products designed by the taxpayer may be for repeat customers and the sizes and types of bottle may be similar to previous products. The development of each new product, and the production process necessary to produce the products at sufficient production volume, starts from new concept drawings developed by engineers. The taxpayer uses a qualifying process of experimentation to evaluate alternative concepts for the product and production processes. The taxpayer's activities related to both the product and the production process are not excluded from the definition of qualified research as an adaptation of an existing business component.

(3) Duplication of existing business component. Any research related to the reproduction of an existing business component, in whole or in part, from a physical examination of the business

component itself or from plans, blueprints, detailed specifications, or publicly available information with respect to such business component. This exclusion does not apply merely because the taxpayer examines an existing business component in the course of developing its own business component.

(4) Surveys, studies, etc. Any efficiency survey; activity relating to management function or technique; market research, testing or development (including advertising or promotions); routine data collection; or routine or ordinary testing or inspection for quality control.

(5) Computer software. Any research activities with respect to internal use software.

(A) For the purposes of this paragraph, internal use software is computer software developed by, or for the benefit of, the taxpayer primarily for internal use by the taxpayer. [A taxpayer uses software internally if the software was developed for use in the operation of the business. Computer software that is developed to be commercially sold, leased, licensed, or otherwise marketed for separately stated consideration to unrelated third parties is not internal use software.]

[(B) Software developed by a taxpayer primarily for internal use by an entity that is part of an affiliated group to which the taxpayer also belongs shall be considered internal use software for purposes of this paragraph.]

(B)[(C)] This exclusion does not apply to software used in:

(i) an activity that constitutes qualified research, or

(ii) a production process that meets the requirements of the Four-Part Test.

[(D) The determination as to whether software is internal use software depends on the facts and circumstances existing at the beginning of the development of the software.]

(6) Social sciences, etc. Any research in the social sciences, arts, or humanities.

(7) Funded research. Any research funded by any grant, contract, or otherwise by another person or governmental entity.

(A) Research is considered funded if:

(i) the taxpayer performing the research for another person retains no substantial rights to the results of the research; or

(ii) the payments to the researcher are not contingent upon the success of the research.

(B) For the purposes of determining whether a taxpayer retains substantial rights to the results of the research:

(i) Incidental benefits to the researcher from the performance of the research do not constitute substantial rights. For example, increased experience in a field of research is not considered substantial rights.

(ii) A taxpayer does not retain substantial rights in the research it performs if the taxpayer must pay for the right to use the results of the research.

(C) If a taxpayer performing research does not retain substantial rights to the results of the research, the research is considered funded regardless of whether the payments to the researcher are

contingent upon the success of the research. In this case, all research activities are considered funded even if the researcher has expenses that exceed the amount received by the researcher for the research.

(D) If a taxpayer performing research does retain substantial rights to the results of the research and the research is considered funded under subparagraph (A)(ii) of this paragraph, the research is only funded to the extent of the payments and fair market value of any property that the taxpayer becomes entitled to by performing the research. If the expenses related to the research exceed the amount the researcher is entitled to receive, the research is not considered funded with respect to the excess expenses. For example, a taxpayer performs research for another person. Based on the contract, the research activities are considered funded under subparagraph (A)(ii) of this paragraph because payments to the researcher are not contingent on the success of the research. The taxpayer retains substantial rights to the results of the research. The taxpayer is entitled to $100,000 under the contract but spent $120,000 on the research activities. In this case, the research is considered funded with respect to $100,000 and is not considered funded with respect to $20,000.

(E) A taxpayer performing research for another person must identify any other person paying for the research activities and any person with substantial rights to the results of the research.

(F) All agreements, not only research contracts, entered into between the taxpayer performing the research and the party funding the research shall be considered in determining the extent to which the research is funded.

(G) The provisions of this paragraph shall be applied separately to each research project undertaken by the taxpayer.

(e) Texas Qualified Research and Development Exemption Registration. In order to claim an exemption under this section, a taxpayer must first register with the comptroller and obtain a registration number.

(1) Registration procedure. To obtain a registration number, a taxpayer must complete Form AP-234, Texas Registration for Qualified Research and Development Sales Tax Exemption, its electronic equivalent, or any form promulgated by the comptroller that succeeds such form.

(A) The taxpayer requesting the registration number must certify that it will not, as a taxable entity or as a member of a combined group, claim a franchise tax research and development activities credit on a franchise tax report based on an accounting period during which it claims an exemption under subsection (b) of this section.

(B) The taxpayer requesting the registration number must provide all data and information required by the comptroller to administer the exemption and comply with Tax Code, §151.3182(c) (Certain Property Used in Research and Development Activities; Reporting of Estimates and Evaluation).

(2) Retroactive registration. A taxpayer may request that a registration number be given retroactive effect.

(A) A taxpayer may request that a registration number have retroactive effect by following the procedures required under paragraph (1) of this subsection and by completing an annual information report, described in paragraph (3) of this subsection, for each prior year for which the registration number is to be effective.

(B) The registration number may be made retroactive to the later of January 1, 2014, or a date requested by a registrant that is no more than four years prior to the date the registration is received,

if the date requested is not within an accounting period during which the registrant, as a taxable entity or as a member of a combined group, claimed the franchise tax research and development activities credit.

(C) A registrant who is issued a retroactive registration number may file a claim for refund of Texas sales and use tax paid on purchases made on or after the later of January 1, 2014, or the effective date of the registration number, that qualify for exemption under subsection (b) of this section, in accordance with the requirements of §3.325 of this title (relating to Refunds and Payments Under Protest).

(D) A claim for a carryforward of an unused franchise tax research and development activities credit under Tax Code, §171.659 does not affect a taxpayer's ability, as a taxable entity or as a member of a combined group, to request a retroactive registration.

(3) Annual information report. A registrant must submit an annual information report for each calendar year its registration number is effective, irrespective of the date on which the original registration occurred.

(A) The registrant must provide all data and information required by the comptroller to administer the exemption and comply with Tax Code, §151.3182(c).

(B) The annual information report must be submitted electronically unless the comptroller issues a waiver. A registrant who cannot comply with this requirement due to hardship, impracticality, or other valid reason must submit a written request to the comptroller for a waiver of the requirement.

(C) The due date for the annual information report for the preceding calendar year is March 31. If March 31 falls on a Saturday, Sunday, or a legal holiday, the due date is the next business day.

(i) An annual information report filed electronically must be completed and submitted by 11:59 p.m. central time on the due date to be considered timely.

(ii) Reports submitted on paper must be postmarked on or before the due date to be considered timely.

(D) A registrant who fails to timely file an annual information report for its registration number will be given written notice of the failure to file. If an annual information report is not submitted within 60 days of the date of the notice of failure to file, the registration number will be cancelled by the comptroller in accordance with paragraph (5) of this subsection.

(4) Direct payment permit holders. A direct payment permit holder must obtain a registration number as required by paragraph (1) of this subsection in order to claim an exemption under this section. A direct payment permit holder with a registration number must file an annual information report for each year the number is effective as required by paragraph (3) of this subsection.

(5) Cancellation of registration number by the comptroller. The comptroller will cancel the registration number of a registrant who fails to comply with the provisions of this section. For example, the comptroller may cancel the registration number of a registrant who fails to file an annual information report or who claims the franchise tax research and development activities credit without first cancelling its registration number, as required by paragraph (8) of this subsection. The comptroller shall give written notice of the cancellation to the registrant. The notice may be personally served on the registrant or sent by regular mail to the registrant's address as shown in the comptroller's records. The former registrant may not claim an exemption under

this section during the period when the registration number is cancelled. A former registrant that purchases an item under a cancelled registration number may be subject to a criminal penalty under Tax Code, §151.707 (Resale or Exemption Certificate; Criminal Penalty) and §3.287(d)(3) of this title (relating to Exemption Certificates).

(6) Effective date of cancellation. A registrant whose registration number is cancelled by the comptroller is responsible for remitting Texas sales and use tax, and penalty and interest from the date of purchase, on any items purchased tax-free pursuant to Tax Code, §151.3182 on or after the effective date of cancellation. In the case of a registrant whose registration number is cancelled because of a failure to file an annual information report, the effective date of the cancellation is December 31 of the last year for which the registrant filed an annual information report. In the case of a registrant whose registration number is cancelled because the registrant, as a taxable entity or as a member of a combined group, claimed the franchise tax research and development activities credit, the effective date of cancellation is the beginning date of the accounting period covered by the franchise tax report on which the credit was claimed.

(7) Reinstatement following cancellation. A former registrant who has had its registration number cancelled by the comptroller may submit a request in writing to have the registration number reinstated.

(A) A former registrant whose registration number has been cancelled may request reinstatement of the number be given retroactive effect. The registrant must file an annual information report for each prior year for which the registration number is to be effective.

(B) A registration number will not be reinstated for periods during which the former registrant is not eligible for the exemption under this section.

(C) Before the comptroller will reinstate a registration number, the former registrant must remit any Texas sales and use taxes, as well as applicable penalties and interest from the date of purchase, on all purchases made tax-free under this section during periods when the registrant was not eligible for the exemption under this section.

(8) Cancellation of registration number by registrant. A registrant who has received a registration number and subsequently chooses to claim the franchise tax research and development activities credit must cancel the registration number. The registrant is responsible for remitting Texas sales and use tax, and penalty and interest from the date of purchase, on any items purchased tax-free under this section during any accounting periods covered by a franchise tax report on which the credit is claimed.

(f) Texas Qualified Research Sales and Use Tax Exemption Certificate. Beginning January 1, 2014, a retailer may accept a valid and complete Form 01-931, Texas Qualified Research Sales and Use Tax Exemption Certificate or any form promulgated by the comptroller or that succeeds such form, in lieu of Texas sales and use tax on the sale of depreciable tangible personal property that qualifies for exemption under subsection (b) of this section. To be valid and complete, a Texas Qualified Research Sales and Use Tax Exemption Certificate must bear the registration number issued to the registrant by the comptroller and must be signed by the registrant or the registrant's authorized agent. Texas Qualified Research Sales and Use Tax Exemption Certificates are subject to the requirements of §3.287(d) of this title. A retailer must maintain a copy of the Texas Qualified Research Sales and Use Tax Exemption Certificate accepted in lieu of tax on a sale and all records supporting that transaction. Refer to §3.281 of this title (relating to Records Required; Information Required).

(g) Divergent use. When a registrant uses an item purchased under a valid Texas Qualified Research Sales and Use Tax Exemption Certificate in a taxable manner, the registrant is liable for

payment of Texas sales and use tax, plus penalty and interest as applicable, based on the fair market rental value of the tangible personal property for the period of time used in the taxable manner. This subsection applies to an item that is used for any purpose other than for use in qualified research, whether that use occurs before, during, or after the time when the item is used in qualified research. Refer to Tax Code, §151.155 (Exemption Certificate).

(h) Refund of Texas sales and use tax paid on depreciable tangible personal property used in qualified research. A registrant with a valid registration number may file a claim for refund of Texas sales and use tax paid on purchases made on or after the later of January 1, 2014, or the effective date of the registration number, that qualify for exemption under subsection (b) of this section in accordance with the requirements of §3.325 of this title.

(i) Effective dates.

(1) The provisions of this section apply to the sale, storage, or use of tangible personal property occurring on or after January 1, 2014.

(2) The sales and use tax exemption for depreciable tangible personal property used in qualified research expires on December 31, 2026.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

Issued in Austin, Texas, on May 24, 2022.

JENNIFER BURLESON
Director, Tax Policy
Comptroller of Public Accounts

# Exhibit 2

**From:** TexReg@sos.texas.gov
**To:** Justyna Alexis
**Subject:** TEXAS REGISTER ACKNOWLEDGMENT OF RECEIPT
**Date:** Tuesday, May 24, 2022 1:58:39 PM

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ACKNOWLEDGMENT OF RECEIPT

Please note that this email acknowledges receipt of your filing only.
If we find that the document or submission form does not conform to statutory filing requirements or our administrative rules, we may refuse to accept it for filing and publication.
If we refuse your filing, we will notify you.

TRD Number: 202202019
For Issue of: 06/10/2022

Submission Date: 2022-05-24 13:38 PM
Receipt Date: 2022-05-24 13:58 PM

Proposed Rulemaking Submission

Agency Name: Comptroller of Public Accounts
Agency Code: 0026
Liaison: Justyna Alexis
Title Number: 34
Part: 1
Chapter Number: 3
Chapter Name: TAX ADMINISTRATION
Subchapter: O
Subchapter Name: STATE AND LOCAL SALES AND USE TAXES
TAC Section Numbers: 3.340

Action Code: Amendment

File Name: 3.340p.docx

# Exhibit 3

The Comptroller of Public Accounts proposes amendments to §3.599, concerning margin: research and development activities credit. The comptroller amends this section to provide guidance regarding the franchise tax research and development activities credit.

The comptroller proposes to amend the definition of Internal Revenue Code (IRC) in subsection (b)(5) to explain which federal Treasury Regulations are applicable to the 2011 federal income tax year. The comptroller has reconsidered comments received during the 2021 rulemaking process and agrees that the adopted definition is too restrictive. The amended definition includes any Treasury Regulation that a taxable entity could have applied to the 2011 federal income tax year. The amended definition also includes specific examples of Treasury Regulations applicable to the 2011 federal income tax year.

The comptroller proposes to amend subsection (d)(5) to remove items that are inconsistent with the changes made to the definition of IRC. The comptroller reletters subparagraph (C) accordingly.

The comptroller reorganizes subsection (i)(1) and (2) for readability and amends the language moved from paragraph (2) to paragraph (1) to explain that the combined group is the taxable entity for the purposes of calculating and reporting the credit.

The comptroller revises paragraph (3) to remove the current text restricting credit carryforwards and describes how to determine the credit carryforward when the membership of a combined group changes.

The comptroller proposes to amend subsection (m) by explaining that the conveyance, assignment, or transfer of an ownership interest in the taxable entity is not a conveyance, assignment, or transfer of the credit by the taxable entity.

Brad Reynolds, Chief Revenue Estimator, has determined that during the first five years that the proposed amended rule is in effect, the rule: will not create or eliminate a government program; will not require the creation or elimination of employee positions; will not require an increase or decrease in future legislative appropriations to the agency; will not require an increase or decrease in fees paid to the agency; will not increase or decrease the number of individuals subject to the rule's applicability; and will not positively or adversely affect this state's economy.

Mr. Reynolds also has determined that the proposed amended rule would benefit the public by improving the clarity and implementation of the section. This rule is proposed under Tax Code, Title 2, and does not require a statement of fiscal implications for small businesses or rural communities. The proposed amendments would have no significant fiscal impact on the state government, units of local government, or individuals. There would be no significant anticipated economic cost to the public.

You may submit comments on the proposal to Jenny Burleson, Director, Tax Policy Division, P.O. Box 13528 Austin, Texas 78711 or to the email address: tp.rule.comments@cpa.texas.gov. The comptroller must receive your comments no later than 30 days from the date of publication of the proposal in the *Texas Register*.

The amendments are proposed under Tax Code, §111.002 (Comptroller's Rules; Compliance; Forfeiture), which provides the comptroller with the authority to prescribe, adopt, and enforce rules relating to the administration and enforcement of the provisions of Tax Code, Title 2 (State Taxation).

The amendments implement Tax Code, Chapter 171, Subchapter M (Tax Credit for Certain Research and Development Activities).

<rule>

§3.599. Margin: Research and Development Activities Credit.

(a) Effective dates.

(1) The provisions of this section apply to franchise tax reports originally due on or after January 1, 2014.

(2) These provisions expire on December 31, 2026. The credits allowed under this section cannot be established on a report originally due after December 31, 2026. The expiration does not affect the carryforward of a credit authorized under these provisions as provided in subsection (l) of this section and established on a report originally due prior to the expiration date of these provisions.

(b) Definitions. The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Business component--A business component is any product, process, computer software, technique, formula, or invention, which is to be held for sale, lease, or license, or used by the taxable entity in a trade or business of the taxable entity.

(2) Combined group--Taxable entities that are part of an affiliated group engaged in a unitary business and that are required to file a combined group report under Tax Code, §171.1014 (Combined Reporting; Affiliated Group Engaged in Unitary Business).

(3) Controlling interest--

(A) For a corporation, either more than 50%, owned directly or indirectly, of the total combined voting power of all classes of stock of the corporation, or more than 50%, owned directly or indirectly, of the beneficial ownership interest in the voting stock of the corporation.

(B) For a partnership, association, trust, or other entity other than a limited liability company, more than 50%, owned directly or indirectly, of the capital, profits, or beneficial interest in the partnership, association, trust, or other entity.

(C) For a limited liability company, either more than 50%, owned directly or indirectly, of the total membership interest of the limited liability company or more than 50%, owned directly or indirectly, of the beneficial ownership interest in the membership interest of the limited liability company.

(4) Four-Part Test--The test described in IRC, §41(d) (Qualified research defined) that determines whether research activities are qualified research. The four parts of the test are the Section 174 Test, the Discovering Technological Information Test, the Business Component Test, and the Process of Experimentation Test.

(5) Internal Revenue Code (IRC)--The Internal Revenue Code of 1986 in effect on December 31, 2011, excluding any changes made by federal law after that date, but including any regulations that are later adopted under that code applicable to the tax year to which the provisions of the code in effect on that date applied. A regulation adopted after December 31, 2011 is only included in this term to the extent that [the regulation requires] a taxable entity could have applied [to apply] the regulation to the 2011 federal income tax year. Examples of treasury regulations included in this definition are:

(A) Treasury Regulation, §1.174-2 (Definition of research and experimental expenditures) as contained in 26 CFR part 1 (revised as of July 21, 2014);

(B) Treasury Regulation, §1.41-4 (Qualified research for expenditures paid or incurred in taxable years ending on or after December 31, 2003) as contained in 26 CFR part 1 (revised as of November 3, 2016), except for paragraph (c)(6) (Internal use software). For paragraph (c)(6), as provided in the last sentence of Treasury Regulation, §1.41-4 (e) (Effective/applicability dates), taxable entities may elect to follow either of the following versions of paragraph (c)(6):

(i) Treasury Regulation, §1.41-4(c)(6) (Internal-use computer software) as contained in 26 CFR part 1 (revised as of April 1, 2003) and IRB 2001-5; or

(ii) Proposed Treasury Regulation, §1.41-4(c)(6) (Internal use software for taxable years beginning on or after the December 31, 1985) as contained in IRB 2002-4.

(6) Public or private institution of higher education--

(A) an institution of higher education, as defined by Education Code, §61.003 (Definitions); or

(B) a private or independent institution of higher education, as defined by Education Code, §61.003.

(7) Qualified research--This term has the meaning given in IRC, §41(d), except that the research must be conducted in Texas. Qualified research activities must satisfy each part of the Four-Part Test.

(8) Qualified research expense--This term has the meaning given in IRC, §41(b) (Qualified research expenses), except that the expense must be for qualified research conducted in Texas. IRC, §41(b) defines qualified research expenses as the sum of in-house research expenses and contract research expenses.

(A) In-house research expenses include any wages paid or incurred for qualified services performed by an employee; any amount paid or incurred for supplies used in the conduct of qualified research; and any amount paid or incurred to another person for the right to use computers in the conduct of qualified research.

(i) Qualified services include an employee either engaging in qualified research or engaging in the direct supervision or direct support of qualified research.

(I) For the purposes of this clause, the term "engaging in qualified research" means the actual conduct of qualified research. For example, a scientist conducting laboratory experiments could be engaging in qualified research.

(II) For the purposes of this clause, the term "direct supervision" means the immediate supervision (first-line management) of qualified research. For example, a research scientist who directly supervises laboratory experiments, but who may not actually perform experiments, could be directly supervising qualified research. "Direct supervision" does not include supervision by a higher-level manager to whom first-line managers report, even if that manager is a qualified research scientist.

(III) For the purposes of this clause, the term "direct support" means services in the direct support of either: Persons engaging in actual conduct of qualified research, or persons who are directly supervising persons engaging in the actual conduct of qualified research.

(-a-) Direct support of research includes, but is not limited to, the services of: a secretary for typing reports describing laboratory results derived from qualified research; a laboratory worker for cleaning equipment used in qualified research; a clerk for compiling research data; and a machinist for machining a part of an experimental model used in qualified research.

(-b-) Direct support of research activities does not include general administrative services, or other services only indirectly of benefit to research activities. For example, services of: payroll personnel in preparing salary checks of laboratory scientists; an accountant for accounting for research expenses; a janitor for general cleaning of a research laboratory; or officers engaged in supervising financial or personnel matters do not qualify as direct support of research. This is true whether general administrative personnel are part of the research department or in a separate department.

(-c-) Direct support does not include supervision. Supervisory services constitute "qualified services" only to the extent provided in subclause (II) of this clause.

(ii) Supplies are any tangible property other than land, improvements to land, or property of a character subject to the allowance for depreciation.

(iii) If a taxable entity claimed a sales or use tax exemption under Tax Code, Chapter 151 (Limited Sales, Excise, and Use Tax) when it purchased a taxable item, and that exemption is for a use other than use in qualified research, the item is excluded from being an in-house research expense, even if it otherwise meets the definition of supplies in clause (ii) of this subparagraph. Exemptions or exclusions that are not based on the use of an item do not result in an exclusion from being an in-house research expense under this clause.

(I) For example:

(-a-) An item for which a taxable entity claimed the manufacturing exemption under Tax Code, §151.318 (Property Used in Manufacturing) or the sale for resale exemption under Tax Code, §151.302 (Sales for Resale) is excluded from being an in-house research expense under this clause.

(-b-) Water, sulphur, and items for which a taxable entity paid sales or use tax to another state are not subject to sales or use tax under Tax Code, §151.315 (Water), Tax Code, §151.3171 (Sulphur), and Tax Code, §151.303 (Previously Taxed Items: Use Tax Exemption or Credit), but are not excluded from being an in-house research expense under this clause.

(II) If an item is excluded from being an in-house research expense under this clause, and the taxable entity used that item in qualified research activities rather than the use for which the sales or use tax exemption was granted, the taxable entity may pay any sales or use tax, and any applicable penalty or interest, related to the purchase or use of the item. Once the applicable sales or use tax, penalty, and interest is paid, the taxable entity may include the cost of that item as an in-house research expense.

(iv) The term wages has the meaning given such term by IRC, §3401(a) (Wages). In the case of an employee within the meaning of IRC, §401(c)(1) (Self-employed individual treated as employee) the term wages includes the earned income as defined in IRC, §401(c)(2) (Earned income) of such employee. The term wages does not include any amount taken into account in determining the work opportunity credit under IRC, §51(a) (Determination of amount).

(v) If an employee performed both qualified services and nonqualified services, only wages for qualified services constitute an in-house research expense. Unless the taxable entity can demonstrate another method is more appropriate, the amount of wages that are in-house research expenses shall be determined by multiplying the total amount of wages paid to or incurred for the

employee during the report year by the ratio of the total time actually spent by the employee in the performance of qualified services for the taxable entity to the total time spent by the employee in the performance of all services for the taxable entity during the report year.

(vi) Notwithstanding clause (v) of this subparagraph, if the ratio of the total time actually spent by an employee in the performance of qualified services for the taxable entity to the total time spent by the employee in the performance of all services for the taxable entity during the report year is greater than 80%, all services performed by that employee are considered qualified services.

(B) Contract research expenses are 65% of any amount paid or incurred by the taxable entity to any person, other than an employee of the taxable entity, for qualified research. If a taxable entity satisfies the requirements of IRC, §41(b)(3)(C) (Amounts paid to certain research consortia) or IRC, §41(b)(3)(D) (Amounts paid to eligible small businesses, universities, and Federal laboratories) the percentage of allowable contract research expenses is increased as provided by those subparagraphs.

(i) An expense is paid or incurred for qualified research only to the extent that it is paid or incurred pursuant to an agreement that:

(I) is entered into prior to the performance of the qualified research;

(II) provides that research be performed on behalf of the taxable entity; and

(III) requires the taxable entity to bear the expense even if the research is not successful.

(ii) If an expense is paid or incurred by the taxable entity pursuant to an agreement under which payment is contingent on the success of the research, then the expense is not a contract research

expense because the expense is considered paid for the product or result of the research rather than the performance of the research. This clause only applies to that portion of a payment that is contingent on the success of the research.

(iii) Qualified research is performed on behalf of the taxable entity if the taxable entity has a right to the research results, even if that right is not exclusive.

(iv) If any contract research expenses are paid or incurred during one report year for qualified research that is conducted in a subsequent report year, the expenses shall be treated as paid or incurred during the report year in which the qualified research is conducted.

(v) See IRC, §41(b) for special circumstances that change the percentage that applies to contract research expenses.

(9) Registration Number--The Texas Qualified Research Registration Number issued by the comptroller to a person who submits the Texas Registration for Qualified Research and Development Sales Tax Exemption form.

(10) Research and development activities credit (credit)--A credit against franchise tax for qualified research expenses that is allowed under Tax Code, Chapter 171, Subchapter M (Tax Credit for Certain Research and Development Activities).

(11) Tax period--The period on which a franchise tax report is based as provided by §3.584(c) of this title (relating to Margin: Reports and Payments).

(c) Application of the Four-Part Test. Research activities must satisfy each part of the Four-Part Test, as described in paragraph (1) of this subsection, to be qualified research.

(1) Four-Part Test.

(A) Section 174 Test. Expenditures related to the research must be eligible to be treated as expenses under IRC, §174 (Research and experimental expenditures).

(i) Expenditures are eligible to be treated as expenses under IRC, §174, if the expenditures are incurred in connection with the taxable entity's trade or business and represent a research and development cost in the experimental or laboratory sense. 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 taxable entity does not establish the capability or method for developing or improving the product or the appropriate design of the product.

(ii) For the purposes of this test, the term "product" includes any pilot model, process, formula, invention, technique, patent, or similar property, and includes products to be used by the taxable entity in its trade or business as well as products to be held for sale, lease, or license.

(iii) Expenditures for the following are not eligible to be treated as expenses under IRC, §174:

(I) land;

(II) depreciable property;

(III) the ordinary testing or inspection of materials or products for quality control;

(IV) efficiency surveys;

(V) management studies;

(VI) consumer surveys;

(VII) advertising or promotions;

(VIII) the acquisition of another's patent, model, production, or process; or

(IX) research in connection with literary, historical, or similar projects.

(B) Discovering Technological Information Test. The research must be undertaken for the purpose of discovering information that is technological in nature.

(i) Research is undertaken for the purpose of discovering technological information if it is intended to eliminate uncertainty concerning the development or improvement of a business component. Uncertainty exists if the information available to the taxable entity does not establish the capability or method for developing or improving the business component, or the appropriate design of the business component.

(ii) In order to satisfy the requirement that the research is technological in nature, the process of experimentation used to discover information must fundamentally rely on principles of the physical or biological sciences, engineering, or computer science. A taxable entity may employ existing technologies and may rely on existing principles of the physical or biological sciences, engineering, or computer science to satisfy this requirement.

(iii) A determination that research is undertaken for the purpose of discovering information that is technological in nature does not require that the taxable entity:

(I) seek to obtain information that exceeds, expands, or refines the common knowledge of skilled professionals in the particular field of science or engineering in which the taxable entity is performing the research; or

(II) succeed in developing a new or improved business component.

(C) Business Component Test. The application of the technological information for which the research is undertaken must be intended to be useful in the development of a new or improved business component of the taxable entity, which may include any product, process, computer software, technique, formula, or invention that is to be held for sale, lease, or license, or used by the taxable entity in a trade or business of the taxable entity.

(i) If a taxable entity provides a service to a customer, the service provided to that customer is not a business component because a service is not a product, process, computer software, technique, formula, or invention. However, a product, process, computer software, technique, formula, or invention used by a taxable entity to provide services to its customers may be a business component.

(ii) A design is not a business component because a design is not a product, process, computer software, technique, formula, or invention. While uncertainty as to the appropriate design of a business component is a qualifying uncertainty for the Section 174 Test and the Discovering Technological information test, the design itself is not a business component. For example, the design of a structure is not a business component, although the structure itself may be a business

component. Similarly, a blueprint or other plan used to construct a structure that embodies a design is not a business component.

(D) Process of Experimentation Test. Substantially all of the research activities must constitute elements of a process of experimentation for a qualified purpose. A process of experimentation is undertaken for a qualified purpose if it relates to a new or improved function, performance, reliability, or quality of a business component. Any research relating to style, taste, cosmetic, or seasonal design factors does not satisfy the Process of Experimentation Test.

(i) A process of experimentation is a process designed to evaluate one or more alternatives to achieve a result where the capability or the method of achieving that result, or the appropriate design of that result, is uncertain as of the beginning of the taxable entity's research activities.

(ii) A process of experimentation must:

(I) be an evaluative process and generally should be capable of evaluating more than one alternative; and

(II) fundamentally rely on the principles of the physical or biological sciences, engineering, or computer science and involve:

(-a-) the identification of uncertainty concerning the development or improvement of a business component;

(-b-) the identification of one or more alternatives intended to eliminate that uncertainty; and

(-c-) the identification and the conduct of a process of evaluating the alternatives through, for example, modeling, simulation, or a systematic trial and error methodology.

(iii) A taxable entity may undertake a process of experimentation if there is no uncertainty concerning the taxable entity's capability or method of achieving the desired result so long as the appropriate design of the desired result is uncertain as of the beginning of the taxable entity's research activities. Uncertainty concerning the development or improvement of the business component (e.g., its appropriate design) does not establish that all activities undertaken to achieve that new or improved business component constitute a process of experimentation.

(iv) The substantially all requirement of this subparagraph is satisfied only if 80% or more of a taxable entity's research activities, measured on a cost or other consistently applied reasonable basis constitute elements of a process of experimentation that relates to a new or improved function, performance, reliability, or quality. The substantially all requirement is satisfied even if the remainder of a taxable entity's research activities with respect to the business component do not constitute elements of a process of experimentation that relates to a new or improved function, performance, reliability, or quality.

(v) Non-experimental methods, such as simple trial and error, brainstorming, or reverse engineering, are not considered a process of experimentation.

(vi) The following are factors that may be considered in determining whether a trial and error methodology is experimental systematic trial and error or non-experimental simple trial and error. Evidence provided to determine the type of trial and error is not limited to these factors, nor is evidence of each factor required. These factors only apply to determining whether a process of experimentation is systematic trial and error. Systematic trial and error is not the only qualifying process of experimentation. These factors are:

(I) whether the person conducting the trial and error methodology stops testing alternatives once a single acceptable result is found or continues to find multiple acceptable results for comparison;

(II) whether all the results of the trial and error methodology are recorded for evaluation;

(III) whether there is a written procedure for conducting the trial and error methodology; and

(IV) whether there is a written procedure for evaluating the results of the trial and error methodology.

(vii) Examples.

(I) Example 1. A taxable entity is engaged in the business of developing and manufacturing widgets. The taxable entity wants to change the color of its blue widget to green. The taxable entity obtains several different shades of green paint from various suppliers. The taxable entity paints several sample widgets, and surveys its customers to determine which shade of green its customers prefer. The taxable entity's activities to change the color of its blue widget to green do not satisfy the Process of Experimentation Test because its activities are not undertaken for a qualified purpose. All of the taxable entity's research activities are related to style, taste, cosmetic, or seasonal design factors.

(II) Example 2. The taxable entity in Example 1 chooses one of the green paints. The taxable entity obtains samples of the green paint from a supplier and determines that it must modify its painting process to accommodate the green paint because the green paint has different characteristics from other paints it has used. The taxable entity obtains detailed data on the green paint from its paint supplier. The taxable entity also consults with the manufacturer of its paint spraying machines.

The manufacturer informs the taxable entity that it must acquire new nozzles that operate with the green paint it wants to use because the current nozzles do not work with the green paint. The taxable entity tests the new nozzles, using the green paint, to ensure that they work as specified by the manufacturer of the paint spraying machines. The taxable entity's activities to modify its painting process are not qualified research. The taxable entity did not conduct a process of evaluating alternatives in order to eliminate uncertainty regarding the modification of its painting process. Rather, the manufacturer of the paint machines eliminated the taxable entity's uncertainty regarding the modification of its painting process. The taxable entity's activities to test the nozzles to determine if the nozzles work as specified by the manufacturer of the paint spraying machines are in the nature of routine or ordinary testing or inspection for quality control.

(III) Example 3. A taxable entity is engaged in the business of manufacturing food products and currently manufactures a large-shred version of a product. The taxable entity seeks to modify its current production line to permit it to manufacture both a large-shred version and a fine-shred version of one of its food products. A smaller, thinner shredding blade capable of producing a fine-shred version of the food product is not commercially available. Thus, the taxable entity must develop a new shredding blade that can be fitted onto its current production line. The taxable entity is uncertain concerning the design of the new shredding blade because the material used in its existing blade breaks when machined into smaller, thinner blades. The taxable entity engages in a systematic trial and error process of analyzing various blade designs and materials to determine whether the new shredding blade must be constructed of a different material from that of its existing shredding blade and, if so, what material will best meet its functional requirements. The taxable entity's activities to modify its current production line by developing the new shredding blade satisfy the Process of Experimentation Test. Substantially all of the taxable entity's activities constitute elements of a process of experimentation because it evaluated alternatives to achieve a result where the method of achieving that result, and the appropriate design of that result, were uncertain as of the beginning of the taxable entity's research activities. The taxable entity identified

uncertainties related to the development of a business component, and identified alternatives intended to eliminate these uncertainties. Furthermore, the taxable entity's process of evaluating identified alternatives was technological in nature and was undertaken to eliminate the uncertainties.

(IV) Example 4. A taxable entity is in the business of designing, developing and manufacturing automobiles. In response to government-mandated fuel economy requirements, the taxable entity seeks to update its current model vehicle and undertakes to improve aerodynamics by lowering the hood of its current model vehicle. The taxable entity determines, however, that lowering the hood changes the air flow under the hood, which changes the rate at which air enters the engine through the air intake system, which reduces the functionality of the cooling system. The taxable entity's engineers are uncertain how to design a lower hood to obtain the increased fuel economy, while maintaining the necessary air flow under the hood. The taxable entity designs, models, simulates, tests, refines, and re-tests several alternative designs for the hood and associated proposed modifications to both the air intake system and cooling system. This process enables the taxable entity to eliminate the uncertainties related to the integrated design of the hood, air intake system, and cooling system. Such activities constitute 85% of its total activities to update its current model vehicle. The taxable entity then engages in additional activities that do not involve a process of evaluating alternatives in order to eliminate uncertainties. The additional activities constitute only 15% of the taxable entity's total activities to update its current model vehicle. In this case substantially all of the taxable entity's activities constitute elements of a process of experimentation because it evaluated alternatives to achieve a result where the method of achieving that result, and the appropriate design of that result, were uncertain as of the beginning of its research activities. The taxable entity identified uncertainties related to the improvement of a business component and identified alternatives intended to eliminate these uncertainties. Furthermore, the taxable entity's process of evaluating the identified alternatives was technological in nature and was undertaken to eliminate the uncertainties. Because 85% of the taxable entity's activities to update its current

model vehicle constitute elements of a process of experimentation that relates to a new or improved function, performance, reliability, or quality, all of its activities satisfy the Process of Experimentation Test.

(V) Example 5. A taxable entity is in the business of providing building and construction services, including the construction of warehouses, strip malls, office buildings, and other commercial structures. The taxable entity is engaged to construct a structure in a part of Texas where foundation problems are common. The taxable entity's engineers were uncertain how to design the structure to ensure stability of the structure's foundation because the taxable entity had never designed a structure in a similar location. The taxable entity's engineers used their professional experience and various building codes to determine how to design the foundation based on the conditions at the construction site. The engineers chose to use piles in the foundation. The taxable entity constructed a test pile on site to confirm whether this would work in the conditions present on the construction site. This test pile would become part of the foundation of the structure regardless of whether the engineers had to redesign the additional piles required for the foundation. The taxable entity's activities in using professional experience and business codes to design the foundation did not meet the Process of Experimentation Test because the activities did not resolve technological uncertainties through an experimental process. Constructing the test pile also did not meet the Process of Experimentation Test because it was not an evaluative process.

(VI) Example 6. A taxable entity is in the business of providing building and construction services, including the construction of warehouses, strip malls, office buildings, and other commercial structures. For one of its projects to construct an office building, the taxable entity was uncertain how to design the layout of the electrical systems. The taxable entity's employees held on-site meetings to discuss different options, such as running the wire under the floor or through the ceiling, but did not actually experiment by installing wire in different locations. The taxable entity used computer-aided simulation and modeling to produce the final electrical system layout. While

in some cases computer-aided simulation and modeling may be an experimental process, in this case, it was not an experimental process because the taxable entity did not use the computer-aided simulation and modeling to evaluate different alternatives in a scientific manner. The taxable entity's activities did not satisfy the Process of Experimentation Test because it did not conduct an experimental process of evaluating alternatives to eliminate a technological uncertainty.

(VII) Example 7. A taxable entity is an oil and gas operator that recently acquired rights to drill in an area in which it had not previously operated. The taxable entity decided to use horizontal drilling in this area, but it had never drilled a horizontal well and was uncertain how to successfully execute the horizontal drilling. At the time the taxable entity began horizontal drilling, the technology to drill horizontal wells was established. The taxable entity selected technology from existing commercially available options to use in its horizontal drilling program. The taxable entity's activities did not satisfy the Process of Experimentation Test because evaluating commercially available options does not constitute a process of experimentation.

(VIII) Example 8. A taxable entity is an oil and gas operator that recently acquired rights to drill in an area in which it had not previously operated. The taxable entity decided to use horizontal drilling in this area. The taxable entity had drilled a horizontal well before in a different formation and at different depths. However, it had never drilled a horizontal well in this formation or at the required depths and was uncertain how to successfully execute the horizontal drilling. The taxable entity utilized its existing technology to perform its horizontal drilling operations in this area and the existing technology was successful. The taxable entity's activities did not satisfy the Process of Experimentation Test because the taxable entity merely used its existing technology and did not perform any experimentation to evaluate any alternative drilling methods.

(IX) Example 9. A taxable entity sought to discover cancer immunotherapies. The taxable entity was uncertain as to the appropriate design of the proteins to be used as a drug candidate. The

taxable entity identified several alternative protein constructs and used a process to test them. The taxable entity's process involved testing the constructs using in vitro functional assays and binding assays, and either modifying the designs or discarding them and repeating the previous steps. The taxable entity took the resulting products from the in vitro testing and tested the drug candidate in living organisms. This process evaluated the various alternatives identified by the taxable entity. The taxable entity's activities satisfied the Process of Experimentation Test.

(2) Application of the Four-Part Test to business components. The Four-Part Test is applied separately to each business component of the taxable entity. Any plant process, machinery, or technique for commercial production of a business component is treated as a separate business component from the business component being produced.

(3) Shrink-back rule. The Four-Part Test is first applied at the level of the discrete business component used by the taxable entity in a trade or business of the taxable entity. If the requirements of the Four-Part Test are not met at that level, then they are applied at the next most significant subset of elements of the business component. This shrinking back of the product continues until either a subset of elements of the product that satisfies the requirements of the Four-Part Test is reached, or the most basic element of the product is reached, and such element fails to satisfy any part of the Four-Part Test.

(4) Software development as qualified research. In determining if software development activities constitute qualified research, the comptroller will consider the facts and circumstances of each activity.

(A) Application of Four-Part Test to software development activities.

(i) A taxable entity must prove that a software development activity is qualified research and meets all the requirements of the Four-Part Test under paragraph (1) of this subsection, even if the activity is likely to qualify as described in subparagraph (B) of this paragraph.

(ii) A taxable entity may prove that a software development activity described as unlikely to qualify in subparagraph (C) of this paragraph, is qualified research by providing evidence that the activity meets all the requirements of the Four-Part Test under paragraph (1) of this subsection.

(B) Software development activities likely to qualify. Types of activities likely to qualify include, but are not limited to:

(i) developing the initial release of an application software product that includes new constructs, such as new architectures, new algorithms, or new database management techniques;

(ii) developing system software, such as operating systems and compilers;

(iii) developing specialized technologies, such as image processing, artificial intelligence, or speech recognition; and

(iv) developing software as part of a hardware product where the software interacts directly with that hardware in order to make the hardware/software package function as a unit.

(C) Software development activities unlikely to qualify. Types of activities unlikely to qualify include, but are not limited to:

(i) maintaining existing software applications or products;

(ii) configuring purchased software applications;

(iii) reverse engineering of existing applications;

(iv) performing studies, or similar activities, to select vendor products;

(v) detecting flaws and bugs directed toward the verification and validation that the software was programmed as intended and works correctly;

(vi) modifying an existing software business component to make use of new or existing standards or devices, or to be compliant with another vendor's product or platform;

(vii) developing a business component that is substantially similar in technology, functionality, and features to the capabilities already in existence at other companies;

(viii) upgrading to newer versions of hardware or software or installing vendor-fix releases;

(ix) re-hosting or porting an application to a new hardware such as from mainframe to PC, or software platform, such as Windows to UNIX, or rewriting an existing application in a new language, such as rewriting a COBOL mainframe application in C++;

(x) writing hardware device drivers to support new hardware, such as disks, scanners, printers, or modems;

(xi) performing data quality, data cleansing, and data consistency activities, such as designing and implementing software to validate data fields, clean data fields, or make the data fields consistent across databases and applications;

(xii) bundling existing individual software products into product suites, such as combining existing word processor, spreadsheet, and slide presentation software applications into a single suite;

(xiii) expanding product lines by purchasing other products;

(xiv) developing interfaces between different software applications;

(xv) developing vendor product extensions;

(xvi) designing graphic user interfaces;

(xvii) developing functional enhancements to existing software applications/products;

(xviii) developing software as an embedded application, such as in cell phones, automobiles, and airplanes;

(xix) developing software utility programs, such as debuggers, backup systems, performance analyzers, and data recovery;

(xx) changing from a product based on one technology to a product based on a different or newer technology; and

(xxi) adapting and commercializing technology developed by a consortium or open software group.

(d) Excluded research activities. Qualified research does not include the activities described in this subsection.

(1) Research after commercial production. Any research conducted after the beginning of commercial production of the business component.

(A) 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 taxable entity for the component's sale or use.

(B) The following activities are deemed to occur after the beginning of commercial production of a business component:

(i) preproduction planning for a finished business component;

(ii) tooling-up for production;

(iii) trial production runs;

(iv) troubleshooting involving detecting faults in production equipment or processes;

(v) accumulating data relating to production processes;

(vi) debugging flaws in a business component; and

(vii) any activities that involve the use of an item for which the taxable entity claimed the manufacturing exemption under Tax Code, §151.318.

(C) In cases involving development of both a product and a manufacturing or other commercial production process for the product, the research after commercial production exclusion applies separately for the activities relating to the development of the product and the activities relating to the development of the process. For example, even after a product meets the taxable entity's basic functional and economic requirements, activities relating to the development of the manufacturing process may still constitute qualified research, provided that the development of the process itself separately satisfies the requirements of this section, and the activities are conducted before the process meets the taxable entity's basic functional and economic requirements or is ready for commercial use.

(D) Clinical testing of a pharmaceutical product prior to its commercial production in the United States is not treated as occurring after the beginning of commercial production even if the product is commercially available in other countries. Additional clinical testing of a pharmaceutical product after a product has been approved for a specific therapeutic use by the Food and Drug Administration and is ready for commercial production and sale is not treated as occurring after the beginning of commercial production if such clinical testing is undertaken to establish new functional uses, characteristics, indications, combinations, dosages, or delivery forms for the product. A functional use, characteristic, indication, combination, dosage, or delivery form shall be considered new only if such functional use, characteristic, indication, combination, dosage, or delivery form must be approved by the Food and Drug Administration.

(E) Examples.

(i) Example 1. A taxable entity is a tire manufacturer and develops a new material to use in its tires. The taxable entity conducts research to determine the changes that will be necessary for it to modify its existing manufacturing processes to manufacture the new tire. The taxable entity determines that the new tire material retains heat for a longer period of time than the materials it currently uses for tires, and, as a result, the new tire material adheres to the manufacturing equipment during tread cooling. The taxable entity evaluates several alternatives for processing the treads at cooler temperatures to address this problem, including a new type of belt for its manufacturing equipment to be used in tread cooling. Such a belt is not commercially available. Because the taxable entity is uncertain of the belt design, it develops and conducts sophisticated engineering tests on several alternative designs for a new type of belt to be used in tread cooling until it successfully achieves a design that meets its requirements. The taxable entity then manufactures a set of belts for its production equipment, installs the belts, and tests the belts to make sure they were manufactured correctly. The taxable entity's research with respect to the design of the new belts to be used in its manufacturing of the new tire may be qualified research under the Four-Part Test. However, the taxable entity's expenses to implement the new belts, including the costs to manufacture, install, and test the belts were incurred after the belts met the taxable entity's functional and economic requirements and are excluded as research after commercial production.

(ii) Example 2. For several years, a taxable entity has manufactured and sold a particular kind of widget. The taxable entity initiates a new research project to develop a new or improved widget. The taxable entity's activities to develop a new or improved widget are not excluded from the definition of qualified research under this paragraph. The taxable entity's activities relating to the development of a new or improved widget constitute a new research project to develop a new business component and are not considered activities conducted after the beginning of commercial production.

(iii) Example 3. For the purposes of this example, assume that the taxable entity's development of its products and manufacturing processes satisfies the Four-Part Test described by subsection (c) of this section and is not otherwise excluded under this subsection. A taxable entity is a manufacturer of integrated circuits for use in specific applications. The taxable entity develops various integrated circuit devices and associated manufacturing processes. The taxable entity assembles various product configurations for testing. After an internal process of testing, the taxable entity delivers a sample quantity of the integrated circuit to a potential customer for further testing. At the time when the samples are delivered to the taxable entity's potential customer, the potential customer has not agreed to purchase any integrated circuits from the taxable entity. This process of testing by both the taxable entity and its potential customer continues until an acceptable product and manufacturing process to produce the product is achieved. At that point, the taxable entity and the potential customer enter into an agreement for the delivery of an order of the integrated circuits. In some cases, no acceptable product or manufacturing process is achieved, and no agreement is reached with the potential customer. Research activities occurring prior to an agreement are not considered activities conducted after the beginning of commercial production because the integrated circuits were not yet ready for commercial use. Any research that occurs after an agreement is reached are excluded as activities conducted after the beginning of commercial production because the integrated circuits were ready for commercial use once the product and associated manufacturing process was accepted by the potential customer.

(2) Adaptation of existing business components. Activities relating 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. For example:

(A) Example 1. A taxable entity is a computer software development firm and owns a general ledger accounting software core program that it markets and licenses to customers. The taxable entity incurs expenditures in adapting the core software program to the requirements of one of its

customers. Because the taxable entity's activities represent activities to adapt an existing software program to a particular customer's requirement or need, its activities are excluded from the definition of qualified research under this paragraph.

(B) Example 2. Assume that the customer from Example 1 pays the taxable entity to adapt the core software program to the customer's requirements. Because the taxable entity's activities are excluded from the definition of qualified research, the customer's payments to the taxable entity are not for qualified research and are not considered to be contract research expenses.

(C) Example 3. Assume that the customer from Example 1 uses its own employees to adapt the core software program to its requirements. Because the customer's employees' activities to adapt the core software program to its requirements are excluded from the definition of qualified research, the wages the customer paid to its employees do not constitute in-house research expenses.

(D) Example 4. A taxable entity manufactures and sells rail cars. Because rail cars have numerous specifications related to performance, reliability and quality, rail car designs are subject to extensive, complex testing in the scientific or laboratory sense. A customer orders passenger rail cars from the taxable entity. The customer's rail car requirements differ from those of the taxable entity's other existing customers only in that the customer wants fewer seats in its passenger cars and a higher quality seating material and carpet that are commercially available. The taxable entity manufactures rail cars meeting the customer's requirements. The rail car sold to the customer was not a new business component, but merely an adaptation of an existing business component that did not require a process of experimentation. Thus, the taxable entity's activities to manufacture rail cars for the customer are excluded from the definition of qualified research because the taxable entity's activities represent activities to adapt an existing business component to a particular customer's requirement or need.

(E) Example 5. A taxable entity is a manufacturer and undertakes to create a manufacturing process for a new valve design. The taxable entity determines that it requires a specialized type of robotic equipment to use in the manufacturing process for its new valves. Such robotic equipment is not commercially available. Therefore, the taxable entity purchases existing robotic equipment for the purpose of modifying it to meet its needs. The taxable entity's engineers identify uncertainty that is technological in nature concerning how to modify the existing robotic equipment to meet its needs. The taxable entity's engineers develop several alternative designs, conduct experiments using modeling and simulation in modifying the robotic equipment, and conduct extensive scientific and laboratory testing of design alternatives. As a result of this process, the taxable entity's engineers develop a design for the robotic equipment that meets its needs. The taxable entity constructs and installs the modified robotic equipment on its manufacturing process. The taxable entity's research activities to determine how to modify the robotic equipment it purchased for its manufacturing process are not considered an adaptation of an existing business component.

(F) Example 6. A taxable entity is an oil and gas operator and has been engaged in horizontal drilling for the past ten years. Recently, the taxable entity was hired by a customer to drill in a formation. The drilling objectives included targeting an interval within that formation for horizontal drilling. The taxable entity was uncertain about the successful execution of the horizontal drilling because it had not previously drilled a horizontal well in that formation. The taxable entity was also uncertain about the economic results from the targeted interval. The taxable entity drilled several horizontal wells before its customer was satisfied with the economic results. The taxable entity modified its existing horizontal drilling program based on these results. The taxable entity's activities to identify a horizontal drilling process are excluded from the definition of qualified research because the activities consisted of adapting an existing business component, its existing horizontal drilling process, and did not involve creating a new or improved business component.

(G) Example 7. For the purposes of this example, assume that the taxable entity's development of its products satisfies the Four-Part Test described by subsection (c) of this section and is not otherwise excluded under this subsection. A taxable entity is a manufacturer of rigid plastic containers. The taxable entity contracts with major food and beverage manufacturers to provide suitable bottle and packaging designs. The products designed by the taxable entity may be for repeat customers and the sizes and types of bottle may be similar to previous products. The development of each new product, and the production process necessary to produce the products at sufficient production volume, starts from new concept drawings developed by engineers. The taxable entity uses a qualifying process of experimentation to evaluate alternative concepts for the product and production processes. The taxable entity's activities related to both the product and the production process are not excluded from the definition of qualified research as an adaptation of an existing business component.

(3) Duplication of existing business component. Any research related to the reproduction of an existing business component, in whole or in part, from a physical examination of the business component itself or from plans, blueprints, detailed specifications, or publicly available information with respect to such business component. This exclusion does not apply merely because the taxable entity examines an existing business component in the course of developing its own business component.

(4) Surveys, studies, etc. Any efficiency survey; activity relating to management function or technique; market research, testing or development (including advertising or promotions); routine data collection; or routine or ordinary testing or inspection for quality control.

(5) Computer software. Any research activities with respect to internal use software.

(A) For the purposes of this paragraph, internal use software is computer software developed by, or for the benefit of, the taxable entity primarily for internal use by the taxable entity. [A taxable entity uses software internally if the software was developed for use in the operation of the business. Computer software that is developed to be commercially sold, leased, licensed, or otherwise marketed for separately stated consideration to unrelated third parties is not internal use software.]

[(B) Software developed by a taxable entity primarily for internal use by an entity that is part of an affiliated group to which the taxable entity also belongs shall be considered internal use software for purposes of this paragraph.]

(B)[(C)] This exclusion does not apply to software used in:

(i) an activity that constitutes qualified research, or

(ii) a production process that meets the requirements of the Four-Part Test.

[(D) The determination as to whether software is internal use software depends on the facts and circumstances existing at the beginning of the development of the software.]

(6) Social sciences, etc. Any research in the social sciences, arts, or humanities.

(7) Funded research. Any research funded by any grant, contract, or otherwise by another person or governmental entity.

(A) Research is considered funded if:

(i) the taxable entity performing the research for another person retains no substantial rights to the results of the research; or

(ii) the payments to the researcher are not contingent upon the success of the research.

(B) For the purposes of determining whether a taxable entity retains substantial rights to the results of the research:

(i) Incidental benefits to the researcher from the performance of the research do not constitute substantial rights. For example, increased experience in a field of research is not considered substantial rights.

(ii) A taxable entity does not retain substantial rights in the research it performs if the taxable entity must pay for the right to use the results of the research.

(C) If a taxable entity performing research does not retain substantial rights to the results of the research, the research is considered funded regardless of whether the payments to the researcher are contingent upon the success of the research. In this case, all research activities are considered funded even if the researcher has expenses that exceed the amount received by the researcher for the research.

(D) If a taxable entity performing research does retain substantial rights to the results of the research and the research is considered funded under subparagraph (A)(ii) of this paragraph, the research is only funded to the extent of the payments and fair market value of any property that the taxable entity becomes entitled to by performing the research. If the expenses related to the research exceed the amount the researcher is entitled to receive, the research is not considered funded with respect to the excess expenses. For example, a taxable entity performs research for

another person. Based on the contract, the research activities are considered funded under subparagraph (A)(ii) of this paragraph because payments to the researcher are not contingent on the success of the research. The taxable entity retains substantial rights to the results of the research. The taxable entity is entitled to $100,000 under the contract but spent $120,000 on the research activities. In this case, the research is considered funded with respect to $100,000 and is not considered funded with respect to $20,000.

(E) A taxable entity performing research for another person must identify any other person paying for the research activities and any person with substantial rights to the results of the research.

(F) All agreements, not only research contracts, entered into between the taxable entity performing the research and the party funding the research shall be considered in determining the extent to which the research is funded.

(G) The provisions of this paragraph shall be applied separately to each research project undertaken by the taxable entity.

(e) Eligibility for credit.

(1) A taxable entity is eligible to claim a credit for the periods in which the taxable entity is engaged in qualified research and incurs qualified research expenses. The credit may be claimed on a franchise tax report for qualified research expenses incurred during the period on which the report is based.

(2) A taxable entity has the burden of establishing its entitlement to, and the value of, the credit by clear and convincing evidence, including proof that the research activities meet the definition of

qualified research, the amount of any qualified research expenses, and applying the shrink-back rule described in subsection (c)(3) of this section.

(A) All qualified research expenses must be paid or incurred in connection with research activities that are qualified research.

(B) All qualified research expenses must be supported by contemporaneous business records.

(i) Contemporaneous business records for wages are records that were created and maintained during the period in which the taxable entity paid the employee to engage in qualified services. This includes, but is not limited to, payroll records, employee job descriptions, performance evaluations, calendars, and appointment books.

(ii) Contemporaneous business records for supplies are records that were created and maintained during the period in which the supplies were purchased. This includes, but is not limited to, inventory records, invoices, purchase orders, and contracts.

(iii) Contemporaneous business records for contract research expenses are records that were created and maintained during the period in which the contract research expenses were paid or incurred. This includes, but is not limited to, contracts and invoices.

(3) An Internal Revenue Service audit determination of eligibility for the federal research and development credit under IRC, §41 (Credit for increasing research activities), whether that determination is that the taxable entity qualifies or does not qualify for the federal research and development credit, is not binding on the comptroller's determination of eligibility for the credit.

(f) Ineligibility for credit.

(1) A taxable entity is not eligible to claim a credit on a franchise tax report for qualified research expenses incurred during the period on which the report is based if the taxable entity, or a member of the combined group, if the taxable entity is a combined group, received an exemption from sales and use tax under Tax Code, §151.3182 (Certain Property Used in Research and Development Activities; Reporting of Estimates and Evaluation) during that period.

(2) A taxable entity that is not eligible to claim a credit under this subsection may carry forward an unused credit under subsection (l) of this section.

(g) Amount of credit.

(1) Qualified research expenses in Texas. Subject to subsection (h) of this section, and except as provided by paragraphs (2), (3), and (4) of this subsection, the credit allowed for any report equals 5.0% of the difference between:

(A) all qualified research expenses incurred during the period on which the report is based; and

(B) 50% of the average amount of all qualified research expenses incurred during the three tax periods preceding the period on which the report is based.

(2) Entities without qualified research expenses in each of the three preceding tax periods. Except as provided by paragraph (4) of this subsection, if the taxable entity has no qualified research expenses in one or more of the three tax periods preceding the period on which the report is based, the credit for the period on which the report is based equals 2.5% of the qualified research expenses incurred during that period.

(3) Qualified research expenses under a higher education contract. Subject to subsection (h) of this section, and except as provided by paragraph (4) of this subsection, if the taxable entity contracts with one or more public or private institutions of higher education for the performance of qualified research and the taxable entity incurs qualified research expenses in Texas under the contract during the period on which the report is based, then the credit for the report equals 6.25% of the difference between:

(A) all qualified research expenses incurred during the period on which the report is based; and

(B) 50% of the average amount of all qualified research expenses incurred during the three tax periods preceding the period on which the report is based.

(4) Entities with qualified research expenses under higher education contracts but without qualified research expenses in each of the three preceding tax periods. If the taxable entity incurs qualified research expenses in Texas under a contract with one or more public or private institutions of higher education for the performance of qualified research during the period on which the report is based, but the taxable entity has no qualified research expenses in one or more of the three tax periods preceding the period on which the report is based, then the credit for the period on which the report is based equals 3.125% of all qualified research expenses incurred during that period.

(5) Same method of computing qualified research expenses required. Notwithstanding whether the statute of limitations for claiming a credit under this section has expired for any tax period used in determining the average amount of qualified research expenses under paragraph (1)(B) or (3)(B) of this subsection, the determination of which research expenses are qualified research expenses for purposes of computing that average must be made in the same manner as that determination is made for purposes of paragraph (1)(A) or (3)(A) of this subsection. The comptroller may verify the qualified research expenses used to compute the prior year average, even if the statute of

limitations for the prior year has expired. This verification will not result in an adjustment to tax, penalty, or interest for any report year for which the statute of limitations is closed.

(6) A taxable entity with any qualified research expenses under higher education contracts in a tax period may include all of its qualified research expenses in the calculations under paragraphs (3) and (4) of this subsection, even if not all of the qualified research expenses are related to higher education contracts. For taxable entities in a combined group, see subsection (i) of this section.

(h) Attribution of expenses following transfer of controlling interest.

(1) If a taxable entity acquires a controlling interest in another taxable entity, or in a separate unit of another taxable entity, during a tax period with respect to which the acquiring taxable entity claims a credit under this section, then the amount of the acquiring taxable entity's qualified research expenses equals the sum of:

(A) the amount of qualified research expenses incurred by the acquiring taxable entity during the period on which the report is based; and

(B) subject to paragraph (4) of this subsection, the amount of qualified research expenses incurred by the acquired taxable entity or unit during the portion of the period on which the report is based that precedes the date of the acquisition.

(2) A taxable entity that sells or otherwise transfers to another taxable entity a controlling interest in another taxable entity, or in a separate unit of a taxable entity, during a period on which a report is based may not claim a credit under this section for qualified research expenses incurred by the transferred taxable entity or unit during the period if:

(A) the taxable entity that makes the sale or transfer is ineligible for the credit under subsection (f) of this section; or

(B) the acquiring taxable entity claims a credit under this section for the corresponding period.

(3) If during any of the three tax periods following the period in which a sale or other transfer described by paragraph (2) of this subsection occurs, the taxable entity that sold or otherwise transferred the controlling interest reimburses the acquiring taxable entity for research activities conducted on behalf of the taxable entity that made the sale or other transfer, the amount of the reimbursement is:

(A) included as qualified research expenses incurred by the taxable entity that made the sale or other transfer for the tax period during which the reimbursement was paid, subject to paragraph (5) of this subsection; and

(B) excluded from the qualified research expenses incurred by the acquiring taxable entity for the tax period during which the reimbursement was paid.

(4) An acquiring taxable entity may not include on a report the amount of qualified research expenses otherwise authorized by paragraph (1)(B) of this subsection if the taxable entity that made the sale or other transfer described by paragraph (2) of this subsection received an exemption under Tax Code, §151.3182 during the portion of the period on which the acquiring taxable entity's report is based that precedes the date of the acquisition.

(5) A taxable entity that makes a sale or other transfer described by paragraph (2) of this subsection may not include on a report the amount of reimbursement otherwise authorized by paragraph (3)(A) of this subsection if the reimbursement is for research activities that occurred during a tax

period in which the entity that makes a sale or other transfer received an exemption under Tax Code, §151.3182.

(i) Combined reporting.

(1) The combined group is the taxable entity for purposes of calculating and reporting this credit. [A credit under this section for qualified research expenses incurred by a member of a combined group must be claimed on the combined report for the group required by Tax Code, §171.1014.]

(2) A credit under this section for qualified research expenses incurred by a member of a combined group must be claimed on the combined report for the group required by Tax Code, §171.1014. [The combined group is the taxable entity for purposes of this section.] The total qualified research expenses of each member of the combined group shall be added together to determine the total credit claimed on the combined report.

(3) When the membership of a combined group changes, the credit carryforward under subsection (l) of this section will be determined as follows:

(A) For the purposes of this paragraph, the carryforward attributable to a member of a combined group for each prior report year is determined by multiplying the total credit carryforward available for that report year by a fraction, the numerator of which is the qualified research expenses paid or incurred by the member during that report year, and the denominator of which is the total qualified research expenses paid or incurred by the combined group during that report year.

(B) If a combined group loses a member, the credit carryforward will be attributed to each member of the combined group that was included on the report for the report year to which the carryforward relates. Each member of the combined group that has a carryforward attributed to it under this

subparagraph, including the member that leaves the combined group, may continue to use that carryforward on its future franchise tax reports.

(C) If a taxable entity that was not part of a combined group when it created a credit carryforward later joins a combined group, any credit carryforward it had previously established may be claimed on the combined group's future franchise tax reports.

(D) If a taxable entity, including a member of a combined group, is a non-surviving entity in a merger transaction, any credit carryforward established by the non-surviving entity may be claimed on the surviving entity's future franchise tax reports.

(E) If a taxable entity, including a member of a combined group, is terminated, dissolved, or otherwise loses its status as a legal entity, the credit carryforward attributable to that taxable entity may not be claimed on any future franchise tax report. This subparagraph does not apply if subparagraph (D) of this paragraph or subsection (m) of this section applies.

(F) If all of the assets of a member of a combined group are conveyed, assigned or transferred in a manner that qualifies under subsection (m) of this section, the carryforward attributable to that member may be conveyed, assigned, or transferred as part of that transaction.

(G) A combined group may only use a credit carryforward attributable to a member under subparagraphs (B), (C), or (D) of this paragraph if that member is part of the combined group on the last day of the accounting period on which that report is based.

[(3) If there is a change in membership of the combined group, the resulting combined group is a new taxable entity and the resulting combined group is not entitled to the carryforward of the credit under subsection (l) of this section because it is no longer the same taxable entity as the taxable

entity that established the credit carryforward. For the purposes of this section, there is no change in membership of the combined group if:]

[(A) the common owner or owners of the members of the combined group changes without any change in the members of the combined group;]

[(B) the common owner or owners change without any change in the members of the combined group other than the addition of a newly-formed entity that is the new common owner; ]

[(C) the combined group undergoes a corporate reorganization that does not result in any member entities leaving the combined group;]

[(D) two or more members of the combined group merge; ]

[(E) one or more members of the combined group forms a new entity that is a member of the combined group; or]

[(F) one or more members of the combined group is terminated, dissolved, or otherwise loses its status as a legal entity.]

(4) A combined group with any qualified research expenses under higher education contracts in a tax period may include all of its qualified research expenses in the calculations under subsection (g)(3) and (4) of this section, even if not all of the members of the combined group have qualified research expenses that are related to higher education contracts.

(j) Tiered partnership reporting.

(1) An upper tier entity and a lower tier entity may claim a credit under this section for qualified research expenses; however, an upper tier entity and a lower tier entity cannot claim a credit under this section for the same qualified research expense.

(2) An upper tier entity that includes the total revenue of a lower tier entity for purposes of computing its taxable margin as authorized by Tax Code, §171.1015 (Reporting for Certain Partnerships in Tiered Partnership Arrangement) may claim the credit under this section for qualified research expenses incurred by the lower tier entity to the extent of the upper tier entity's ownership interest in the lower tier entity.

(k) Limitation. The total credit claimed under this section for a report, including the amount of any carryforward credit under subsection (l) of this section, may not exceed 50% of the amount of franchise tax due for the report before any other applicable tax credits.

(l) Carryforward.

(1) If a taxable entity is eligible for a credit that exceeds the limitation under subsection (k) of this section, the taxable entity may carry the unused credit forward for not more than 20 consecutive reports.

(2) Research and development credits, including credit carryforwards, are considered to be used in the following order:

(A) a credit carryforward of unused research and development credits accrued under Tax Code, Chapter 171, Subchapter O (Tax Credit for Certain Research and Development Activities), before its repeal on January 1, 2008, and claimed as authorized by §3.593 of this title (relating to Margin: Franchise Tax Credits);

(B) a credit carryforward under this section; and

(C) a current year credit.

(3) If a taxable entity claims a carryforward on a report within the statute of limitations, the comptroller may verify that the credit that established the carryforward was based on qualified research activities, even if the statute of limitations for the year in which the credit was created has expired. This verification will not result in an adjustment to tax, penalty, or interest for any report year for which the statute of limitations has expired. The verification may result in an adjustment to the carryforward for all periods within the unexpired statute of limitations and for all future periods in which the taxable entity may claim the carryforward.

(4) For application of the carryforward to combined groups, see subsection (i)(3) of this section.

(m) Assignment prohibited. A taxable entity may not convey, assign, or transfer the credit allowed under this section to another entity unless all of the assets of the taxable entity are conveyed, assigned, or transferred in the same transaction. The conveyance, assignment, or transfer of an ownership interest in the taxable entity is not a conveyance, assignment, or transfer of the credit by the taxable entity.

(n) Application for credit.

(1) A taxable entity applies for the credit by claiming the credit on or with the franchise tax report for the period for which the credit is claimed. A taxable entity must also complete Form 05-178, Texas Franchise Tax Research and Development Activities Credits Schedule, its electronic equivalent, or any form promulgated by the comptroller that succeeds such form.

(2) The comptroller may require a taxable entity that claims a credit under this section to provide all data and information required for the comptroller to evaluate the credit and to comply with Tax Code, §151.3182(c).

(o) Amending reports.

(1) If a report was originally due and filed after the effective date of this section and a credit allowed under this section was not claimed, a taxable entity may file an amended report within the statute of limitation to claim a credit, if the taxable entity or a member of its combined group does not have an active Registration Number for that period. See §3.584 of this title for information about filing an amended report.

(2) If a taxable entity or member of the combined group has or had a Registration Number for a period for which it intends to claim a credit allowed under this section, the taxable entity or member of the combined group must submit a written request to cancel the registration before claiming a credit. The written request must contain the following information:

(A) the tax period(s) covered by the report for which it intends to claim a credit allowed under this section; and

(B) a statement whether any tax-exempt purchases were made. If tax-exempt purchases were made, include an original or amended sales and use tax report with tax due, penalty, and interest for the sales tax periods that cover the tax-exempt purchases.

(3) If a report was filed claiming a credit allowed under this section and the taxable entity later decides to claim a sales and use tax exemption under Tax Code, §151.3182, the taxable entity must:

(A) file an amended franchise tax report that does not claim the credit under this section and pay any tax, penalty, and interest due;

(B) apply for a Registration Number; and

(C) file a request for a sales and use tax refund for taxes paid on purchases under Tax Code, §151.3182.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

Issued in Austin, Texas, on May 24, 2022.

JENNIFER BURLESON
Director, Tax Policy
Comptroller of Public Accounts

# Exhibit 4

**From:** TexReg@sos.texas.gov
**To:** Justyna Alexis
**Subject:** TEXAS REGISTER ACKNOWLEDGMENT OF RECEIPT
**Date:** Tuesday, May 24, 2022 1:59:21 PM

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ACKNOWLEDGMENT OF RECEIPT

Please note that this email acknowledges receipt of your filing only.
If we find that the document or submission form does not conform to statutory filing requirements or our administrative rules, we may refuse to accept it for filing and publication.
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TRD Number: 202202020
For Issue of: 06/10/2022

Submission Date: 2022-05-24 13:40 PM
Receipt Date: 2022-05-24 13:59 PM

Proposed Rulemaking Submission

Agency Name: Comptroller of Public Accounts
Agency Code: 0026
Liaison: Justyna Alexis
Title Number: 34
Part: 1
Chapter Number: 3
Chapter Name: TAX ADMINISTRATION
Subchapter: V
Subchapter Name: FRANCHISE TAX
TAC Section Numbers: 3.599

Action Code: Amendment

File Name: 3.599p.docx