

Research Tax Credits Report Writing Pro Forma - EXHIBIT A

I. Internal Revenue Code and Treasury Regulations

Research Credit – General Rule

IRC § 41(a) allows taxpayers a credit against tax for increasing research activities. Generally, the credit is an incremental credit equal to the sum of 20% of the excess (if any) of the taxpayer's "qualified research expenses" (QREs) for the taxable year over the base amount, and 20% of the taxpayer's basic research payments as determined by subsection (e)(1)(A).

IRC § 41(b)(1) provides that the term QRE means the sum of the following amounts which are paid or incurred by a taxpayer during the taxable in carrying on the trade or business of a taxpayer –

(A) in-house research expenses, and

(B) contract research expenses.

IRC § 41(b)(2) generally defines "in-house research expenses" as wages paid or incurred to an employee for qualified services performed and amounts paid or incurred for supplies used in the performance of qualified services.

IRC § 41(b)(2)(B) and Treas. Reg. § 1.41-2(d)(2) define qualified services as services consisting of engaging in qualified research activities or engaging in direct supervision or direct support of research activities which constitute qualified research. If substantially all (80% or more) of the services performed by an individual for the taxpayer for a given tax year consists of services meeting the "qualified" requirement, then all services (100%) performed by the individual for taxpayer are qualified services for that tax year.

IRC § 41(b)(3) defines "contract research expenses" as 65% of amounts paid or incurred by taxpayer to any person (other than an employee of the taxpayer) for qualified research.

IRC § 280C(c) reduces the deduction for research and experimental expenditures under IRC § 174 (or the increase in basis, if the taxpayer capitalizes the expenditures) by the amount of the research credit; but § 280C(c)(3) allows the taxpayer to make an irrevocable election to claim a reduced credit and deduct the full amount of the research expenditures. The amount of the reduced research credit is determined under IRC § 280(c)(3)(B).

Qualified Research Activities

The Research Credit is an activity based credit. IRC § 41(d)(1) provides four requirements (tests) to determine whether the taxpayer's activity is "qualified research." Taxpayers must satisfy each of the four requirements for the activity to qualify. The four requirements are as follows:

(1) Section 174 Test - expenditures must be treated as expenses under IRC § 174 (Research & Experimental Expenditures);

(2) Technological Information Test - research must be undertaken for the purpose of discovering information "which is technological in nature";

(3) Business Component Test - the application of such research is intended to be useful in the development of a new or improved business component of the taxpayer; and

(4) Process of Experimentation Test - substantially all of the activities must constitute elements of a process of experimentation for a purpose relating to a new or improved function, performance, or reliability or quality.

IRC § 41(d)(2) requires that the four part test of IRC § 41(d)(1) must be applied separately with respect to each business component of the taxpayer. Thus, a taxpayer should provide a factual nexus, or bridge, between claimed QREs and specific research projects or business components.

Treas. Reg. § 1.41-4(b)(2) (Shrinking-back rule) provides that the requirements of section 41(d) and paragraph (a) are to be applied first at the level of the discrete business component, that is, the product, process, computer software, technique, formula, or invention to be held for sale, lease, or license, or used by taxpayer in a trade or business of taxpayer. If these requirements are not met at that level, then they apply at the most significant subset of elements of the product, process, computer software, technique, formula, or invention to be held for sale, lease, or license. This shrinking back of the product is to continue until either a subset of elements of the product that satisfies the requirements is reached, or the most basic element of the product is reached and such element fails to satisfy the test. This shrinking-back rule is applied only if a taxpayer does not satisfy the requirements of section 41(d)(1) and paragraph (a)(2) of this section with respect to the overall business component. The shrinking-back rule is not itself applied as a reason to exclude research activities from credit eligibility.

IRC § 41(d)(4) explicitly excludes certain activities from the definition of qualified research. These activities include research after commercial production, adaptation of existing business component to a particular customer's requirement or need, duplication of existing business component (in whole or in part), surveys, studies, etc., computer software, foreign research, social sciences, etc., and funded research. In addition, research does not include components relating to style, taste, cosmetic, or seasonal design factors.

(a) Section 174 Test

The section 174 test requires that expenditures connected with the research activities be eligible for treatment as expenses under IRC § 174. IRC § 174 and Treas. Reg. § 1.174-1 provide alternative methods of accounting for "research or experimental expenditures" that taxpayers would otherwise capitalize.

Treas. Reg. § 1.174-2(a)(1) and (2) define "research or experimental expenditures" as "expenditures incurred in connection with the taxpayer's trade or business which represent research and development costs in the experimental or laboratory sense" if: (1) the information available to the taxpayer does not establish the capability or method for developing or improving a product or process or the appropriate design of a product or process (i.e., an uncertainty exists); and (2) the activity is intended to discover information that would eliminate this uncertainty. 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. Whether expenditures qualify as research or experimental expenditures depends on the nature of the activity to which the expenditures relate, not the nature of the product or improvement being developed or the level of technological advancement the product or improvement represents.

(b) Technological Information Test

IRC § 41(d)(1)(B)(i) provides that research be undertaken for the purpose of “discovering information” that is “technological in nature”.

Treasury Regulation § 1.41-4(a)(3)(i) provides that research is undertaken for the purpose of discovering 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.

Treas. Reg. § 1.41-4(a)(4) provides that information is technological in nature if the process of experimentation used to discover such information fundamentally relies 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.

(c) Business Component Test

IRC § 41(d)(2) defines business component as any product, process, computer software, technique, formula, or invention which is to be held for sale, lease, or license by taxpayer or used in taxpayer’s trade or business.

(d) Process of Experimentation Test

IRC § 41(d)(1)(C) provides that substantially all of taxpayer’s activities must constitute elements of a process of experimentation for a purpose relating to a new or improved function, performance, or reliability or quality.

Treas. Reg. § 1.41-4(a)(5) provides “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. A process of experimentation must fundamentally rely on the principles of the physical or biological sciences, engineering, or computer science and involves the identification of uncertainty concerning the development or improvement of a business component, the identification of one or more alternatives intended to eliminate that uncertainty, and the identification and the conduct of a process of evaluating the alternatives (through, for example, modeling, simulation, or a systematic trial and error methodology). A process of experimentation must be an evaluative process and generally should be capable of evaluating more than one alternative. 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.

Note: When the capability and method of achieving the desired result and the appropriate design of the desired result are readily discernible and applicable at the beginning of the taxpayer's research activities, Treas. Reg. §1.41-4(a)(5) expressly excludes the activities as a process of experimentation even if the activities include the evaluation of alternatives.

Note: The process of experimentation test was added to IRC § 41 because Congress was concerned that taxpayers had been claiming the credit "for virtually any expenses relating to product development" as opposed to high technology. S. Rept. 99-313, at 694-695 (1986), 1986-3 C.B. (Vol.3) 1, 694-695; H. Rept. 99-426, at 178 (1985), 1986-3 C.B. (Vol.2) 1, 178. A process of experimentation must fundamentally rely on the principles of the physical or biological sciences, engineering, or computer science and involves the identification of uncertainty concerning the development or improvement of a business component, the identification of one or more alternatives intended to eliminate that uncertainty, and the identification and the conduct of a process of evaluating the alternatives (through, for example, modeling, simulation, or a systematic trial and error methodology). Treas. Reg. § 1.41-4(a)(5)(i).

Treas. Reg. §1.41-4(a)(6) defines the "substantially all" requirement. In order for the activity to constitute qualified research, substantially all of the activities must constitute elements of a process of experimentation that relates to a qualified purpose. This is satisfied only if 80% or more of a taxpayer's research activities constitute elements of a process of experimentation. This "substantially all" requirement is applied separately to each business component.

Excluded Activities

IRC § 41(d)(4) provides that the term "qualified research" does not include any of the following activities:

- (A) Research after commercial production.
- (B) Adaptation of an existing business component.
- (C) Duplication of an existing business component.
- (D) Surveys, studies, etc. Any –
 - (i) efficiency survey;
 - (ii) activity relating to management function or technique;
 - (iii) market research, testing, or development (including advertising or promotion);
 - (iv) routine data collection; or
 - (v) routine or ordinary inspection testing or inspection for quality control.
- (E) Computer software (except to the extent provided in the Regulations);
- (F) Foreign Research;
- (G) Social sciences, arts, or humanities; and
- (H) Funded Research.

Note: Treas. Reg. § 1.41(c)(2) through (9) provides an explanation for each of the above identified excluded activities. Further, Treas. Reg. § 1.41(c)(10) provides illustrations of each explanation. To the extent you are asserting that an activity is excluded from the definition of qualified research, you should refer to the applicable Regulation for guidance.

(a) Research after commercial production

Treas. Reg. § 1.41-4(c)(2) explains "Research after commercial production" as activities conducted after the business 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. Such activities include: (a) preproduction planning for

a finished business component; (b) tooling-up for production; (c) trial production runs; (d) trouble shooting involving detecting faults in production equipment or processes; (e) accumulating data relating to production processes; and (f) debugging flaws in a business component.

Note: However, if the taxpayer is developing both a product and a manufacturing or other commercial production process for the product, and “after a product meets the taxpayer’s basic functional and economic requirements,” then activities relating to the development of the manufacturing process may constitute qualified research, if the development of the process itself separately satisfies the statutory requirements, and the “activities are conducted before the process meets the taxpayer’s basic functional and economic requirements or is ready for commercial use.” Treas. Reg. § 1.41-4(c)(2)(iii).

(b) Adaptation of existing business components

Treas. Reg. § 1.41-4(c)(3) describes “Adaptation of existing business components” as activities relating to adapting an existing business component to a particular customer’s need are not qualified research. An illustration of the adaptation of an existing business component is shown in Treas. Reg. § 1.41-4(c)(10), Ex. 6:

X 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. B orders passenger rail cars from X. B’s rail car requirements differ from those of X’s other existing customers only in that B wants fewer seats in its passenger cars and a higher quality seating material and carpet that are commercially available. X manufactures rail cars meeting B’s requirements.

Conclusion. X’s activities to manufacture rail cars for B are excluded from the definition of qualified research. The rail car sold to B was not a new business component, but merely an adaptation of an existing business component that did not require a process of experimentation. Thus, X’s activities to manufacture rail cars for B are excluded from the definition of qualified research under section 41(d)(4)(B) and paragraph (c)(3) of this section because X’s activities represent activities to adapt an existing business component to a particular customer’s requirement or need.

(c) Duplication of existing business component

Treas. Reg. § 1.41-4(c)(4) describes “Duplication of existing business component” as activities relating to reproducing 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 about the business component are not qualified research. This exclusion does not apply merely because the taxpayer examines an existing business component in the course of developing its very own business component. An illustration of duplication of an existing business component is shown in Treas. Reg. § 1.41-4(c)(10), Ex. 8.

(d) Funded Research

For expenses paid or incurred after December 31, 2003, Treas. Reg. § 1.41-4(c)(9) defines the extent to which research is so funded by reference to Treas. Reg. § 1.41-4A(d). Pursuant to Treas. Reg. § 1.41-4A(d), research performed for a customer under a contract is considered funded unless two requirements are met by the taxpayer: (1) the amounts payable under the agreement are contingent on the success of the research and thus considered to be paid for the product or result of the research (see Treas. Reg. § 1.41-2(e)(2)); and (2) the taxpayer retains substantial rights in the research. All agreements and not only research contracts entered into between the taxpayer performing the research and other persons are considered in determining the extent to which the research is funded.

Treas. Reg. § 1.41-2(e)(2) provides if an expense is paid or incurred pursuant to an agreement under which payment is contingent on the success of the research, then the expense is considered to be paid for the product or result rather than the performance of the research. This test is applied to each expenditure and not to the agreement as a whole.

Treas. Reg. § 1.41-4A(d)(2) provides if a taxpayer performing research for another person retains no substantial rights in research under the agreement providing for the research, the research is treated as fully funded for purposes of section 41(d)(4)(H), and no expenses paid or incurred by the taxpayer in performing the research are qualified research expenses. Incidental benefits to the taxpayer from performance of research (for example, increased experience in the field of research) do not constitute substantial rights.

Treas. Reg. § 1.41-4A(d)(3) provides that a taxpayer does not retain substantial rights in the research if the taxpayer must pay for the rights to use the results of the research.

Base Amount

Because the research credit is an incremental credit based on the increase in research activity, a base line amount of prior research activity must be established. The research credit is allowed for increasing research activities in an amount equal to the sum of 20% of the excess (if any) of the QREs for the taxable year over the “base amount.” IRC §41(c) describes the computation of the base amount.

IRC § 41(c)(1) provides that the “base amount” is generally the product of the “fixed-base percentage” and the average annual gross receipts of the taxpayer for the taxable years preceding the taxable year for which the credit is being determined (the “credit year”).

IRC §41(c)(6) requires that the taxpayer establish consistency between the QREs claimed in the credit year(s) and the QREs it paid or incurred during its base years. It provides that the QREs and gross receipts taken into account in computing the fixed base percentage must be determined on a basis which is consistent with the determination of qualified research expenses for the credit year, regardless of whether the period for filing a claim for credit or refund has expired for any taxable year that is taken into account in determining the fixed base percentage. To satisfy this consistency requirement, the taxpayer must show consistency between the QREs in the credit year and its QREs during the base years, as well as consistency between gross receipts in the base years and the prior four years' average.

Substantiation

Treas. Reg. §1.41-4(d) provides that a taxpayer claiming the research credit must retain records in sufficiently usable form and detail to substantiate that the expenditures claimed are eligible for the credit. Guidance on record retention is set forth in Treas. Reg. § 1.6001-1.

I.R.C § 6001 requires taxpayer to maintain records sufficient to enable Commissioner of Internal Revenue to determine his or her correct tax liability. IRC § 6001 states that “every person liable for any tax imposed by this title, or for the collection thereof, shall keep such records, render such statements, make such returns, and comply with such rules and regulations as the Secretary may from time to time prescribe.”

Treas. Reg. §1.6001-1(a) provides that any person subject to income tax shall keep such permanent books of account or records, including inventories, as are sufficient to establish the amount of gross income, deductions, credits, or other matters required to be shown by such person in any return of such tax.

IRC § 7602(a) provides the authority “to examine any books, papers, records, or other data which may be relevant or material” for the purpose of ascertaining the correctness of any return.

II. Case Law by Issue Area

Qualified Research Activities

(a) Section 174 Test – Uncertainty Requirement

- Union Carbide Corp. et al. v. Commissioner, T.C. Memo. 2009-50, aff'd 697 F.3d 104 (2nd Cir. 2012) - Whether an uncertainty exists is an objective test that depends on the information available to the taxpayer.
- United Stationers, Inc. v. United States, 163 F.3d 440 (7th Cir.1998) - The Court of Appeals rejected the taxpayer's argument that its software development involved a process of experimentation. The taxpayer purchased a commercially available software package and modified the software in eight separate projects to create eight separate, but related, software programs suited to its particular needs. The Court of Appeals found that the eight projects had no technical uncertainty from the outset.
- Norwest Corp. & Subs. v. Commissioner, 110 T.C. 454 (1998).- The taxpayer made software changes to its money transfer system to satisfy regulatory and business requirements. The Tax Court found that there was no evidence of uncertainty about the taxpayer's ability to complete the project, which “merely required conducting good coding and eliminating bugs through testing-issues resolved through cookbook approaches and skilled practice, not research and experimentation.”

(b) Business Component - Shrinking-Back Rule

- Trinity Industries, Inc. v. United States, 691 F. Supp. 2d 688 (N.D. Tex. 2010), aff'd, 757 F.3d 400 (5th Cir. 2014) – Taxpayer claimed that expenses incurred in developing six prototype ships to be sold to customers were QREs. The Court concluded the each prototype ship represented a business component for the purposes of the research credit, but not “substantially all of the activities of [the research in the business

component] constitute[d] elements of a process of experimentation.” Furthermore, the Court was unable to apply the shrinking-back rule because the taxpayer failed to offer any evidence associated with any subset of the vessels, such as a new engine or piston.

QREs – Amounts Creditable

- Suder v. Commissioner, T.C. Memo. 2014-201 - In determining wages creditable under section 41, the amount of wages must be reasonable under the circumstances. IRC § 174(e); Treas. Reg. § 1.174-2(a)(6) (amount of an expenditure is reasonable if the amount would ordinarily be paid for like activities by like enterprises under like circumstances).
- Suder v. Commissioner, T.C. Memo. 2014-201 – Royalty payments are not remuneration for services performed by an employee and, as a result, royalties paid as compensation are not creditable as wages paid for qualified services.
- Union Carbide Corp. et al. v. Commissioner, T.C. Memo. 2009-50, aff’d 697 F.3d 104 (2nd Cir. 2012) - The costs for supplies used by taxpayer for its projects were not creditable as an “amount paid or incurred for supplies used in the conduct of qualified research” because they were “[r]aw materials used to make finished goods that would have been purchased regardless of whether [taxpayer] was engaged in qualified research.” Taxpayer’s applicable business component was the production processes, as opposed to the product itself; thus, the taxpayer’s cost of supplies for product production would be used regardless of any research performed. Only the additional costs incurred as a direct result of the research activities (i.e., incremental costs above those that would be incurred for production activities alone) may be treated as QREs.
- TG Missouri v. Commissioner, 133 T.C. 278 (2009) – Prototype supplies for plastic injection molds developed by a contractor for an OEM were not “property of a character subject to allowance for depreciation” because the contractor did not own them as they were sold to the customer. Consequently, the costs of the plastic injection molds it purchased from third-party toolmakers and sold to its customers were creditable.

Funded Research Exclusion - Contingent on the Success of the Research

- Fairchild Industries, Inc. v. United States, 71 F.3d 868 (Fed. Cir. 1995), rev’g, 30 Fed. Cl. 839 (1994) - The funded research inquiry “turns on who bears the research costs upon failure of the research.” Fairchild Industries entered into fixed price incentive contracts with the United States Air force, which were determined to be not funded.¹ Under the terms of the contracts, the Air Force was obligated to pay for the research only if the taxpayer produced results that met the contract specifications and certain provisions of the Defense Acquisition Regulations. The contracts provided that the Air Force could

¹ A fixed price incentive contract is a “contract that provides for adjusting profit and establishing the final contract price by application of a formula based on the relationship of total final negotiated cost to total target costs. The final price is subject to a price ceiling, negotiated at the outset.” 48 C.F.R. § 16.403(a) (1994); Fairchild Industries, 71 F.3d at 870, n. 3.

terminate the contract either for default or for the convenience of the government. The Air Force would pay bi-monthly advanced payments to Fairchild Industries, calculated as a percentage of the expenditures the taxpayer actually incurred, which were refundable to the Air Force if contract specifications were not met.

- In Geosyntec Consultants, Inc. v. United States, 776 F. 3d 1330 (11th Cir., 2015), aff'g, 2013 U.S. Dist. LEXIS 140185 (S.D.Fla 2013) - In Geosyntec, the District Court held that certain fixed price contracts between an environmental engineering firm and its clients were not funded, and that certain capped costs contracts between the firm and its clients were funded. With respect to the fixed fee contracts, the District Court noted that such contracts are “inherently risky” because to the extent a contractor's performance is unsuccessful, the contractor must remedy the performance without additional compensation. However, after noting the inherent risk, the District Court went on to examine the specific contractual terms of three representative fixed fee contracts, and determined that Geosyntec bore the financial risk of failure based on specific contracts terms allowing its clients to dispute the completion of a project milestones and withhold payment.

Geosyntec appealed the decision the District Court’s decision to the Eleventh Circuit Court of Appeals as it related to the capped cost contracts. On appeal, Geosyntec argued that it faced substantial financial risk under the capped contracts because its compensation was fixed. In rejecting this argument, the Court of Appeals stated that Geosyntec’s general economic risk arguments were misplaced in that the cost-of-performance is not the financial risk with which the research credit is concerned. In other words, the only issue is whether the firm bore the financial risk of failure, and not whether the firm ran the risk of exceeding its own budget. The Court further noted that: (1) additional compensation exceeding the capped amounts was available in certain circumstances; (2) the firm’s work “was not subject to inspection and testing before acceptance”; and provisions requiring the general standard of care applicable to taxpayer or taxpayer’s uniform assurances that its performance would be free from negligence do not mandate “success performance” but rather “proper performance.”

Note: Taxpayers may often attempt to cite the District Court’s opinion in Geosyntec for the proposition that fixed fee contracts are per se not funded because they are inherently risky. However, as noted in the District Court’s opinion, the government argued that the Geosyntec was attempting to create this per se rule for fixed fee contracts, and the District Court stated this was a mischaracterization of the taxpayer’s argument. Further, after noting that fixed fee contracts are inherently risky, the District Court analyzed the specific terms of the fixed fee contracts at issue, including the payment, inspection, warranty, and default provisions, to determine whether the financial risk of failure shifted to Geosyntec. Lastly, on appeal, the Eleventh Circuit Court of Appeals clarified the type of financial risk applicable to the research credit in that a taxpayer’s risk of exceeding its own budget is not relevant. It is important to note that the Government did not appeal the District Court’s holding as it related to the fixed fee contracts. Thus, Court of Appeals did not render an opinion as to whether the District Court properly interpreted the financial risk of the fixed fee contracts.

- Lockheed Martin Corporation v. United States, 210 F.3d 1366 (Fed. Cir. 2000), rev. in part, 42 Fed. Cl. 485 (1998) - Any determination of risk must be made solely on the “research agreement” between the parties, with no consideration of any external statute not expressly incorporated in that agreement.

- Dynetics Inc. and Subsidiaries v. United States, 121 Fed.Cl. 492 (2015) - The U.S. Court of Federal Claims considered whether seven sample contracts were funded and thus excluded from the definition of qualified research. Of the seven sample contracts, three were cost-plus-fixed-fee contracts, three were fixed-price-level-of-effort contracts, and one was a time-and-materials contract. The Court held that the contracts were “funded” by the government, and no expenses paid or incurred by the taxpayer in performing the contracts were qualified research expenses. With respect to the specific contract provisions, the Court concluded as follows:
 - The inspection clauses made no assertion that Dynetics expressly accepted contractual responsibility for producing any product, did not give the government rejection rights, and did not expressly provide that Dynetics would be paid only for “accepted” work. Further, Taxpayer, as government contractor, needed only provide a certain level of effort to be paid for its work on fixed-price contracts, and since its payment was not contingent on successful performance, it was not put at financial risk by the terms of any inspection or rejection clause incorporated into the contracts, suffering instead only the risk that it might not earn a profit.
 - Clauses authorizing the government to require corrective work did not place the risk of nonpayment upon Dynetics because that provision also provided that the contractor would recover its costs for such corrective work.
 - A warranty clause requiring Dynetics to “conform to the highest standards of workmanship for the type of work involved” did not put risk on Dynetics because it included no rejection or reperformance provisions. Furthermore, Dynetics could not rely upon state statutes giving a cause of action for breach of warranty because “any determination of risk must be made solely on the ‘research agreement’ between the parties, with no consideration of any external statute not expressly incorporated in that agreement.”
 - Termination clauses allowing the government to terminate the contract for convenience did not shift risk to Dynetics because those clauses allowed Dynetics to recover all reimbursable costs, costs of settlement of the terminated work, and a portion of the fee payable under the terminated contract.

Taxpayer wanted the Court to look outside of the terms of the contracts to a course of dealing; however, the Court held that where terms of taxpayer's contracts were not ambiguous, Courts will not look outside of the four corners of the contract in determining whether contracts were contingent on success.

Funded Research Exclusion – Substantial Rights

- Lockheed Martin Corporation v. United States, 210 F.3d 1366 (Fed. Cir. 2000), rev. in part, 42 Fed. Cl. 485 (1998) - The appellate court concluded that Lockheed retained substantial rights in the research performed by it under fixed-price contracts with the government even if it did not have the right to exclude others from using its research. The court found that the right to use the research, even if not exclusive, is a substantial right.

Software Exclusion

- U.S. v. Davenport, 897 F. Supp. 2d 496 (N.D. Tex. 2012) – This case sheds light on the circumstances under which the IRS will reject software-based research credits. The Court's analysis of the credits rests on two basic principles. First, quality control testing is not a qualified research activity. Second, uncertainty as to the capability or method of achieving a specific result, or the appropriate design of the desired result, must exist at the beginning of the project for there to be a process of experimentation. These principles were already well articulated for research credits based on manufacturing, but this case clarifies that they apply to software as well.

Substantiation - In general

Tax credits are a matter of legislative grace, and taxpayers bear the burden of proving they are entitled to claim tax credits. INDOPCO, Inc. v. Commissioner, 503 U.S. 79, 84 (1992); New Colonial Ice Co. v. Helvering, 292 U.S. 435, 440 (1934).

(a) Record Keeping

- Taxpayers are not required to substantiate their research credit claims with any particular types of documents. Union Carbide Corp. v. Commissioner, T.C. Memo. 2009-50, aff'd 697 F.2d 104 (2nd Cir. 2012).
- A taxpayer is not required to keep records in a particular manner (e.g., on a project or business component basis) so long as the records maintained substantiate entitlement to the credit. Shami v. Commissioner, 741 F.3d 560, 567 (5th Cir.2014), aff'g in part, vacating in part, and remanding T.C. Memo.2012-78; see also T.D. 9104, 2004-1 C.B. 406, 408 ("[T]he 2001 proposed regulations do not contain a specific recordkeeping requirement beyond the requirements set out in section 6001 and the regulations thereunder.").

(b) Use of Statistical Sampling to Substantiate Qualified Research Activities

- Bayer Corp. and Subs v. U.S., 850 F. Supp. 2d 522 (W.D.Pa. 2012) . Bayer Corporation, a multifaceted sciences company with over 20,000 employees in the United States and business operations in health care, material science, and crop science, did not account for research expenses on a project-by-project basis but rather grouped expenses for similar types of activities into cost centers, which are akin to function-oriented departments. The company claimed research credits for 17 tax years (1990 to 2006) attributable to more than \$6 billion in QREs relating to approximately 100,000 business components and incurred at 49 different facilities and accounted for within more than 1,000 cost centers for research conducted by more than 10,000 employees. In light of the massive size of the taxpayer's claims, and in response to discovery requests by the government demanding the taxpayer to identify each and every business component (i.e., product, process, etc.) addressed by its wide-ranging research activities, the taxpayer asked the district court to impose a scientifically valid statistical sampling plan that would define and limit the scope of pretrial discovery and the facts to be proven at trial. In denying Bayer Corporation's motion to use a statistical sampling method, the District Court held that the identification of business components

is critical to establishing entitlement to qualified research expenses, and a sampling plan that wouldn't identify all of the business components underlying the claimed qualified research expenses is unacceptable. Granting Bayer Corporation relief from the recordkeeping requirement would, in effect, "constitute a reward" to taxpayer for failing to keep evidence regarding research expenses in sufficiently usable form and detail.

(c) Cohan Rule – Estimating QREs

- General Rule: If a taxpayer can prove that its employees engaged in qualified services, the Court may estimate the expenses associated with those activities. United States v. McFerrin, 570 F.3d 672, 679 (5th Cir. 2009); Shami v. Commissioner, 741 F.3d 560, 568 (5th Cir.2014) (stating that the rule of Cohan v. Commissioner, 39 F.2d 540, 543–544 (2d Cir.1930), applies in the context of the section 41 research tax credit). For the Cohan rule to apply, however, a reasonable basis must exist on which the Court can make an estimate. Shami v. Commissioner, 741 F.3d at 568–569. If a taxpayer fails to maintain a proper system to capture relevant information, then the "inexactitude is of their own making." Cohan, 39 F.2d at 544
- First Condition for Use of Estimates: Estimation methods are permitted only in cases where the taxpayer provides sufficient substantiation to establish qualified research as defined in IRC § 41(d) was performed, and the sole issue is the exact amount paid or incurred in the qualified research activity.
 - Williams v. United States, 245 F.2d 559, 560 (5th Cir. 1957) – The court may not be required to guess or estimate. There must be sufficient evidence to satisfy the court that at least the amount allowed in the estimate was spent or incurred for the stated purpose. "Until the [court] has that assurance from the record, relief to the taxpayer would be unguided largesse".
 - Oates v. Commissioner, 316 F.2d 56 (8th Cir. 1963) – The court stated "[w]e believe that considerable discretion exists in the application of the Cohan rule, and that such rule should be applied only in cases where the taxpayer has clearly shown that he is entitled to some deduction and that uncertainty exists only as to the exact amount thereof."
 - Epp v. Commissioner, 78 T.C. 801 (1982) – The record in this case established absolutely no basis for allocating any portion of expenditures to a deductible purpose. Therefore, a deduction based on the Cohan rule would be "unguided largesse."
 - Norgaard v. Commissioner, 939 F.2d 874 (9th Cir. 1991) – Taxpayer did not present credible evidence from which an estimate could be made.
 - Fudim v. Commissioner, TC Memo 1994-235 – Estimate must have a "credible evidentiary basis" from which the court can make an estimate. After determining based on evidence presented by Dr. Fudim that he "no doubt" engaged in qualified research, the Tax Court estimated time worked on such research based on petitioner's testimony and **other evidence** in the record.

- Second Condition Use of Estimate: A reasonable basis must exist on which Court can make an estimate.
 - Eustace v. Commissioner, T.C. Memo. 2001-66, aff'd 312 F.3d 905 (7th Cir. 2002) - Subsequent to filing its original returns for 1990, 1991, and 1992, where no research credit was claimed, taxpayer hired a new tax manager in December 1993, who determined that the company should have claimed research credits relating to such tax years. The tax manager interviewed employees and delineated the employees and activities that he believed qualified for the research credit. The Tax Court found that taxpayer's reconstructions of QREs through the uncorroborated time allocations by a tax department employee who was not involved in the research were "unreliable, inaccurate, incomplete, and wholly insufficient."
 - Union Carbide Corp. v. Commissioner, T.C. Memo. 2009-50, aff'd 697 F.2d 104 (2nd Cir. 2012) – Over two extensive trials, taxpayer presented a combination of contemporaneous documentation, numerous fact witness testimony, multiple opinions of expert witnesses, and reasonable judgments and estimates to substantiate their claimed qualified research activities and QREs
 - United States v. McFerrin, 570 F.3d 672 (5th Cir. 2009) – A research and development tax credit "study" formed the basis of the research tax credits claimed by the Taxpayer. The Government proved convincingly that the work and resulting report were fundamentally flawed and unreliable. The report was entitled to no weight. Taxpayers produced no records showing how many hours each employee worked on any given project. Nor were there records of how many hours any employee's work involved activities that might constitute research, let alone qualified research. There were no records showing what supplies were used in activities that might constitute research.
 - Shami v. Commissioner, TC Memo 2012-78, aff'd. in part, 741 F.3d 560 (5th Cir. 2014) - Taxpayers failed to provide any documentation that established how much time, if any, the executives spent performing research and development services during the relevant years. Moreover, testimony petitioners offered to substantiate the time which the executives spent performing purported qualified services was inadequate and contradicted by several witness. The testimony was general, vague, conclusory, and insufficient. In conclusion, the uncorroborated time allocations by highly compensated executives with no scientific backgrounds was an insufficient basis upon which to make an estimate. The Fifth Circuit Court of Appeals vacated and remanded the Tax Court's decision on other grounds.
 - Suder v. Commissioner, T.C. Memo. 2014-201 – the Tax Court, in addressing whether the taxpayer, a manufacturer and seller of telephone systems, had adequately substantiated its QREs, determined that the testimony of the senior vice president in charge of product development was sufficient to identify employees who performed qualified services and the employees' time allocation for qualified services. The vice president provided these allocations to the accounting department, which calculated QREs by multiplying the allocations against the employees' W-2 wages. It is important to note that at trial, the vice president testified for 4 days and provided detailed information concerning the

employees' roles and responsibilities. Further, his testimony was corroborated by contemporaneous records as well as current employees called by taxpayer and former employees called by the IRS.

(d) Base Year Expenses

Research, Inc. v. United States, Civ. No. 3-94-385, 95-1 USTC ¶ 50,407 (D. Minn. June 21, 1995) - The taxpayer was denied the research credit because it could not quantify the base period research expenses attributable to its "special system projects." The expenses associated with these special projects were included in the credit year, and the taxpayer admitted that it incurred the same type of expenses in the base period. The taxpayer could not, however, determine the amount it incurred in the base period because it had destroyed the relevant documentation. The court disallowed the credit because the relative increase in qualified research expenses could not be measured without considering the expenses incurred during the base period for the same type of projects included in the credit year.

III. Other Relevant References

- Rev. Proc. 2011-42, 2011-37 I.R.B. 318 provides that a sampling estimate will constitute adequate substantiation for a tax return position if the procedures provided in Appendix A (Sampling Plan Standards), Appendix B (Sampling Documentation Standards), and Appendix C (Technical Formulas) of the revenue procedure are followed.
- In 2002 IRS NSAR 20350, the Service stated that contracts are not considered contingent on the success where the standard of performance is that of a similar qualified design professional exercising due care. Where the contract requires substantial performance, warrants results, or the contract is governed by local law that applies a warranty of results standard, then the contract is contingent on results, and is therefore not funded.

Research Tax Credits Report Writing Pro Forma:

The goal of an examination of the research tax credit is to determine if a taxpayer's purported research activities and expenses meet all the requirements established by the Internal Revenue Code (the Code) and Treasury Regulations (Regulations). Your examination should properly develop all issues that determine if, and, if applicable, to what extent, the taxpayer was engaged in qualified research activities within the meaning of IRC § 41, and whether taxpayer incurred qualified research expenses in connection with those activities.

Remember that quality report writing is to develop the issues and document steps that were used in the examination. Your report should consist of the following parts:

- Part I – Issues
- Part II – Facts
- Part III – Tax Law
- Part IV – Taxpayer's Position
- Part V – Argument / Discussion
- Part VI – Conclusion
- Part VII – Exhibits

PART I – ISSUES:

The ISSUES section is the first part of the report. In this area you should give an executive summary of why adjustments were made as a result of your examination.

Example:

The following problems were identified with the Taxpayer's claimed credit for increasing research activities under IRC § 41:

- The Taxpayer failed to identify Business Components meeting the definition of "Business Components" under IRC § 41(d)(2) and the Regulations.
- The Taxpayer failed to demonstrate that the activities, which its employees worked on, constituted a Process of Experimentation ("POE"), and failed to identify the time employees spent engaged at an activity level in what it deems to be a POE.
- The Taxpayer failed to show that it adequately analyzed whether the activities, which it deems are qualified research, should be excluded under the exclusion clauses in IRC § 41(d)(4) and the Regulations.
- The Taxpayer's activities are specifically excluded from the definition of "qualified research" under IRC § 41(d)(4)(H) as "funded research."
- The Taxpayer failed to demonstrate it has met the burden of providing the necessary substantiation for the credit claimed.
- The Taxpayer utilized an inappropriate statistical method of determining qualified research expenses that produced results that did not meet the requirements per Revenue Procedure 2011-42.

PART II – FACTS:

In the FACTS section, you should summarize the taxpayer's business, describe the research tax credit as claimed by taxpayer, and document steps that were used in the examination. Detail what information was provided by taxpayer as well as what information was requested but not provided by taxpayer.

The determination as to whether a taxpayer is entitled to its claimed research tax credit is a fact intensive inquiry of multiple elements required under IRC § 41 and the Regulations. The pertinent facts will differ based on your specific taxpayer and circumstances. Therefore, it is impossible to provide a comprehensive list of facts that should be included in your report. Keeping in mind such limitations, below is a non-exhaustive list of items that should be included in the FACTS section of your reports to the extent applicable. As noted, this list is non-exhaustive - meaning that based on the specific circumstances of your case, there may be additional items that should be included in your report.

- Explain what type of industry the taxpayer is involved in.
- Explain taxpayer's general business practices.
- Detail the projects that were used in the determination of the qualified research activities (QRA).
- Did the taxpayer use statistical sampling?
 - o Explain how the statistical sample was compiled by Taxpayer.
 - o Explain how the statistical sample was utilized by Taxpayer in connection with the computation of the research tax credit.
- Did the taxpayer show how their projects met the four part test of IRC § 41(d)?
- Were any of the taxpayer's QRA excluded due to IRC § 41(d)(4)?
 - o Identify all facts that will support your later analysis.
 - o For contract research expenses, describe the material terms of the contracts (e.g., payment methods, acceptance provisions, warranties, etc.)
- List and identify the qualified research expenditures (QRE) that the taxpayer used in computing the research tax credit. Were there wages, supplies, or contract research expenditures?
- How did the taxpayer track all of their costs to the QRA?
- How did the taxpayer compute their claimed research credit?
 - o How was the fixed-base percentage computed?
 - o Did the taxpayer make any estimates in connection with the fixed-base percentage computations? What evidence is used by taxpayer to support those estimates?
- Explaining if the taxpayer used a consultant or accountant to prepare the credit study.
- Was the taxpayer represented at the examination? List all parties.
- Detail if you conducted any employee interviews in determining the appropriate research credit.
- Describe what type of contemporaneous documentation you reviewed.

- Was an engineer, CAS or any other IRS specialists assigned to your case?
- Did taxpayer fail to provide you with any of the requested information?
- Were any summons issued? If so, to whom and what information was obtained?
- How did the taxpayer compute the research tax credit? Were the base years properly accounted for? Did the taxpayer use the IRC § 280C election?

PART III – TAX LAW:

In the TAX LAW section, you should cite to all applicable Code sections, Regulations, Revenue Rulings, Case Law, etc., which will be relied upon for your analysis. Attached to this Pro Forma as **Exhibit A** are examples of tax law that will be applicable to your determination. It is advised that you copy the tax law applicable to the specific facts and circumstances of your case into the report. However, when copying the tax law into your report, you should keep in mind the following:

- Not all of the tax law will be applicable to your case. Therefore, you should limit the copying to the issues of your specific case (e.g., funded research, lack of substantiation, no QRA's, exclusions from QRA's, issues with QREs, etc.).
- **Exhibit A** is not a comprehensive list of all tax law pertaining to the research tax credit. Therefore, additional research may be required depending on the issues in your specific case.
- To the extent taxpayer relies on tax law not cited in **Exhibit A**, you will need to perform additional research to address that position.
- The case law cited in **Exhibit A** represents only a summary of the pertinent facts and holding in a particular case. You should independently review any case cited in your report to confirm that its facts and holding support the Service's position in your case.

To the extent that you have any questions concerning applicable tax law in your case, you should consult the [SB/SE Counsel Cadre](#) attorney assigned to your area or your local Counsel office.

PART IV – TAXPAYER POSITION:

In the TAXPAYER POSITION section, you will summarize the taxpayer's position as to why it claimed the research tax credit. In most cases, you will rely on data received in the taxpayer's protest of adjustments and responses to the IDRs that you issued to determine the taxpayer's position as to each issue. If the taxpayer provides you with a formal protest, you should list each statement made by the taxpayer to support their position or explicitly refer to their protest listed in the exhibits (Part VII).

PART V – ARGUMENT / DISCUSSION:

The ARGUMENT/DISCUSSION section is the key part of your examination report. In this section, you will be arguing the Service's position on each issue identified in Part I and rebutting the taxpayer's position identified in Part IV. Below are some items that you need to describe in this section:

- Did you review all material presented by the taxpayer? If not, what material was reviewed and what material was not reviewed? Explain your review process / procedures, and address why certain material was reviewed or not reviewed.
- The report narrative should not explicitly indicate that “taxpayer has qualified research activities” or that you believe that some of the business components may qualify, unless the evidence reviewed supports this statement. If the taxpayer has not substantiated that they have performed qualified research, you should not include an opinion as to whether the projects qualify in the report. Stay with the facts - do not presume.
- Describe audit steps taken.
- Present a multi-tiered argument that describes:
 - a. Failure to demonstrate qualified research activity test.
 - b. Specific exclusions from QRAs.
 - c. Inflated or unsubstantiated QRE's.
 - d. Incorrect, unsubstantiated or inconsistent base computation.
 - e. Lack of substantiation.
 - f. Improper statistical sampling-compliance with Rev. Proc. 2011-42.
- Stay away from general terms, such as “routine” or “normal,” to describe taxpayer’s activities. Be specific.
- Did the taxpayer respond to all of your IDRs? Did the taxpayer provide all of the information you requested under each of your IDRs? If not, identify the IDRs that the taxpayer failed to respond to and the information the taxpayer failed to provide, and explain why you needed these responses and information (i.e., how does the taxpayer’s non-response affect your determination).
- If the claim was disallowed due to lack of adequate substantiation, explain why the records provided were insufficient.
- If high level employee interviews or questionnaires were employed for the taxpayer’s research analysis, was this the sole or primary source for the qualification of the research activities and QRE determination¹? If “high-level” interviewees were used, did the taxpayer or representative explain why they did not pursue securing direct testimony or make queries of individuals who actually were engaged in research activities? Provide taxpayer’s explanation. Regardless of who was interviewed, did you verify whether relevant and reliable corroborating documentation was available to support the testimonial information and determinations?
- Did the taxpayer have corroborative evidence to support its interview or survey conclusions? Was this information reviewed? If so, explain what was done (i.e., did

¹ There is a qualitative distinction between an interview in which the witness is asked to explain what he/she did during a tax year (and then allow the representatives, who are legal and tax professionals, to make the determination as to whether or not the described activities qualify), versus an interview in which the witness is merely asked to opine as to the percentage of time she or another employee spent performing qualified research activities in general.

you review the corroborating documentation for all interviewees or a sample of some of the documentation?). Explain why you did not find this evidence persuasive.

- Was the funded research exclusion potentially applicable (see IRC § 41(d)(4)(H))? If so, was the issue developed - why or why not? If the issue was developed, explain your findings.
- Are any other “Excluded Activities” as described in IRC § 41(d)(4) applicable? If so, are the applicable excluded activities identified in the report? Does the report identify the business components to which the exclusions are applicable? Explain what audit work was performed to develop these issues.
- Are there multiple reasons for the disallowance? If so, does the report clearly identify each basis for the disallowance?
- If you conducted interviews of taxpayer personnel, identify who was interviewed, explain the purpose of the interview and your findings.

Example 1:

The activities constituting the taxpayer's credit for increasing research activities do not rise to the level of qualified research required by the Internal Revenue Code. The activities fail to qualify under any of three independent reasons: the business component requirement, the funded research exclusion, and the process of experimentation test.

Under the business component requirement: The taxpayer's designs are not a product; the taxpayer's designs are not to be held for sale, lease, or license, and the taxpayer's designs are not used by the taxpayer in a trade or business of the taxpayer. The taxpayer's activities do not meet the requirements of qualified research as set forth under section 41(d)(1). The taxpayer's creation of the design drawings by itself does not demonstrate a QRA. The taxpayer has not shown that there was uncertainty regarding the appropriate design at the outset of the project. Creation of drawings is the first step in the design process and generally a process of experimentation is not required.

Under the funded research exclusion: The taxpayer's role as a consulting engineer, primarily for municipal infrastructure projects, is undertaken pursuant to contracts with the municipality (or other client). The taxpayer's contracts for ten of the largest projects were provided to the Internal Revenue Service for review. These contracts provide for payment to the taxpayer for all services provided, and the taxpayer is fully funded by its client for all phases of work. The taxpayer does not undertake any design for its own use or without a promise of payment.

The taxpayer's contractual obligation to perform satisfactorily is only a promise to design using some standard of care. The taxpayer's contracts neither imply a warranty, nor guarantee success of the project. The taxpayer bears no risk in the outcome of the project – it is paid pursuant to contract terms, so long as it performs its work. Assuming reasonable care is exercised by the taxpayer; payment would be enforced by a court of law, and likely secured a mechanic's lien. The required liability insurance provision guards against the risk that the taxpayer's employees perform designs below the standard of care, not the risk that the design concept is unsuccessful. The argument that the taxpayer retains rights to the designs, and may use them without payment to the client, is illusory. Of the ten contracts provided for examination, five grant ownership rights in the design to the client. The remaining contracts are silent on the matter. However, the taxpayer's designs are not designs that have any value beyond that of the single use contemplated by the client, and the taxpayer has not discussed any multiple-use designs to support that it could be done. Rights retained in the research must also be substantial, not a mere incidental right such as know-how.

Under the Process of Experimentation Test: The civil engineering challenges faced by the taxpayer are not new or novel, and a significant body of knowledge is available for reference. The uncertainties described above can be overcome by the application of well-established engineering principles and commercially available software. A taxpaying entity engages in a process of experimentation when it develops a hypothesis, tests the hypothesis in a scientific manner, analyzes the results of the test, and refines or discards the hypothesis. The activities of the taxpayer, however, involve mere trial and error, or iteration of its models to achieve an efficient and safe design. Designing within building code parameters, with calculation-performing software is hardly pushing the envelope into experimental areas. The amount of time determining "can this bridge even be built" is de minimus, considering the length of the design process.

Example 2:

Once it is determined which, if any, of Taxpayer's projects represent QRAs, then the only QREs which need to be determined are for those qualifying projects. Expenditures relating to non-qualifying projects are not QREs.

If some projects are determined to be QRAs, a nexus must be found between the payments for wages, supplies and contract research, and the QRAs to which the payments relate. The required nexus has not been established in this case.

Taxpayer estimated the total of its claimed in-house employee research wage amounts because it did not have contemporaneous documentation to prove an amount. While courts have allowed the use of an estimation method where a taxpayer does not have contemporaneous records, Taxpayer fails both conditions for allowance of its estimation methodology. See Cohan v. Commissioner, 39 F.2d 540 (2d Cir. 1930); Fudim v. Commissioner, T.C. Memo. 1994-235. First, Taxpayer has failed to establish that it engaged in QRAs as defined in section 41(d). A review of Taxpayer's project report reveals a daily application of engineering principles and data gathering and studies. Any QRA was not readily apparent.

The substantiation provided by Consultant and Taxpayer in support of the claims for research tax credit are wholly defined recollections, estimations, and reconstructions that are unreliable, inaccurate, incomplete, and absolutely insufficient to establish that Taxpayer engaged in qualified research.

Taxpayer failed to establish that it engaged in qualified research as defined in section 41(d) for any project listed in the Consultant's research study report. Nothing that could even be considered as supportive and demonstrative of research and experimental activity was witnessed from review of all that was presented. As discussed above, qualified research was not readily apparent from the reports prepared for this claim or attempts to obtain this information through IDR.

Second, the estimates did not have a "credible evidentiary basis" from which an accurate estimate could be made. Like the taxpayer in Eustace v. Commissioner, T.C. Memo. 2001-66, aff'd 312 F.3d 905 (7th Cir. 2002), Taxpayer's estimation, which is based purely on dated recollection, estimation, and extrapolation, falls far short of meeting a taxpayer's burden of proof that the claimed salaries were paid for qualified research activities and not reimbursed in full. This case is certainly not like Fudim where there was definitely no doubt that Mr. Fudim spent almost all of his time engaged in qualified services and at his cost.

As shown in the "Tax Law" section above, there are various component requirements that must be met in order to claim the research credit. There is an accounting component in the form of expenditures under IRC § 41(b) and a technical component in the form of activities under IRC § 41(d). The existence of excluded activities listed under IRC § 41(d) (4) must also be verified. There is also a computational component involving the base amount under IRC § 41(c) as well as the effect of acquisitions and dispositions under IRC § 41(f). Here, Taxpayer's reconstruction of claimed QREs is unreliable, inaccurate, incomplete, and wholly insufficient to establish that its claimed research expenditures qualify for any component of the research credit.

PART VI – CONCLUSION:

In the CONCLUSION section of your report, you will summarize in a brief statement why adjustments were made to the taxpayer's research tax credit. This section should tie in all of your arguments and any rebuttals to the taxpayer's position.

Example:

Taxpayer failed to show that it has correctly computed its base amount pursuant to IRC §41(c). As in the current period, Taxpayer provided a list of projects performed by Taxpayer during the base period that contained merely a project name, ID number, and year. Project costs were not identified. Rather, like the project descriptions presented for the current year research expenditures, the project activity descriptions were prepared from oral testimony and best recollection for the sole purpose of the research credit claim submission. Taxpayer has not provided any supporting records or documentation linking an employee's estimated QRE costs to any qualified activities or projects. Finally, the Taxpayer has failed to provide substantiation that it has met the consistency requirements.

PART VII – EXHIBITS:

In the EXHIBITS section of the report, you will want to list all of your exhibits that you have described in your report. You will want to include the following as part of your exhibits:

- Copy of the credit study, if one was prepared.
- Listing of all of the taxpayer's projects used in the QRA's.
- List of employee's QRE's and the percentage of their QRE's.
- Supply cost list that were used in QRE's.
- Contract research listing used in the QRE's.
- Copy of statistical sample.
- IRS Engineer's report.
- IRS CAS report.
- Copies of interview notes of employee's or other parties to the research claimed.

Credit for Increasing Research Activities

10-Step Audit Tool

The 10-step table below is an audit tool for examiners conducting examinations of taxpayers claiming a research tax credit. The 10 steps are categorized into four groups:

1. Critique the method the taxpayer used to determine the credit (Steps 1-3)
2. Gather facts to determine the correct amount of the credit (Steps 4-8)
3. Determine the proper amount of the credit (Step 9)
4. Consider appropriateness of penalties (Step 10)

The types of expenses qualifying for the research credit are limited to wage, supply, and contract expenses. If supply and contract expenses are not material to the total qualified research expenditures (QREs) reported on the Form 6765, it may not be necessary to perform extensive audit steps of the supply and contract expenses included in QREs.

Steps	Items to consider:
1. Examination Preplan	• Review Form 6765 – Credit for Increasing Research Activities. • Conduct electronic research (i.e. taxpayer’s website, Google, Yahoo, etc.) to gain an understanding of the taxpayer’s trade or business including its history, the number and type of employees, and the activities that could qualify for the research tax credits. • Consult with an Engineer using the Specialist Referral System (SRS) to help identify the issues to address in the examination, and assist with factual development. • Prepare appropriate IDRs to fit the facts of the case. It is recommended that the documents be provided in advance of the initial interview (see Step 2) to allow sufficient time to review. • Review all IDR responses prior to the interview. • If the taxpayer fails to provide complete and timely responses to IDR requests, examiners should consider issuance of summons. ➢ LB&I: Refer to the IDR directive and the Summons Handbook IRM 25.5. ➢ SB/SE: Refer to the Summons Handbook IRM 25.5. • Prepare the initial interview (see LB&I and SBSE websites below for current guidance) to address the taxpayer’s research activities. • If related to a civil penalty investigation of a promoter or return preparer, follow the guidance outlined in the “white paper” included in the file. • Determine the method used by the taxpayer to compute the credit, either: ➢ Traditional (Legacy) – base % computation based on gross receipts & credit expense from a “base period” from 1/1/84-12/31/88. ➢ Alternative Simplified Credit (ASC) – uses QRE’s for the prior years as a base for comparing current years QRE’s. • Review the requirements of the code and regulations. There are many Issue Snapshots, FAQs, audit tools, sample IDR questions and other resources on the LB&I General Business Credits IPG and the SB/SE Research Tax Credit webpage.
2. Initial Interview	• Conduct an initial interview to gain an understanding of the nature of and types of the taxpayer’s research activities and the methodology used to determine which activities met the Four-Part Test per IRC §41(d)(1). Ascertain what documents and records were relied upon. • Tour the taxpayer’s business, research, production, and any other relevant facilities.

Credit for Increasing Research Activities
10-Step Audit Tool

Steps	Items to consider:
3. If any form of sampling was used to determine the credit computed under the study, probe the taxpayer's sample.	• Use the Specialist Referral System (SRS) to request a Computer Audit Specialist (CAS) to help in the review of the taxpayer's sample. • Determine how the taxpayer's sample was selected. For each sampled item, identify how the taxpayer determined whether it qualified, including the taxpayer's criteria for distinguishing between qualified and non-qualified research activities. Note: A taxpayer must identify QREs for each sampled project. Taxpayers sometimes improperly use attribute sampling to make an adjustment for non-qualified projects without identifying the QREs associated with the projects. This is not appropriate because it is based on the invalid assumption that the QREs for every project are the same. • Use of an invalid attribute sample does not automatically result in the disallowance of the taxpayer's research tax credit. An audit of the issue is still necessary.
4. Probe the taxpayer's calculation of the fixed base percentage, or the QREs for the three preceding years under the Alternative Simplified Credit (ASC) method.	• The fixed base percentage (FB%) calculation requires a determination of the QREs in the base years. Taxpayers often use estimates to determine the QREs in the base years. Estimates must be supported by credible evidence. If the taxpayer does not have credible evidence to support the base years' QREs estimate, examiners should disallow the estimates. Relevant cases to review <i>Shami v. Commissioner</i>, T.C. Memo. 2012-78, <i>aff'd. in part</i>, 741 F.3d 560 (5th Cir. 2014), <i>Suder v. Commissioner</i>, T.C. Memo. 2014-201 and <i>Research, Inc. v. United States</i>, 76 A.F.T.R 2d 95-5688, 95-2 USTC ¶ 50,407, (D. Minn. 1995). • Some taxpayers inappropriately use the IRC §41(c)(3)(B)(i) start-up company rules to compute the FB%. For example, some taxpayers assert they are entitled to use the start-up company rules solely because they failed to keep records from 1984-1988. • Taxpayers who failed to keep records to compute a FB% may elect to use the Alternative Simplified Credit (ASC) method to file their research tax credit claim (see the Issue Snapshot on the LB&I General Business Credit IPG-Research Activities and the SB/SE Research Tax Credit webpage for additional information). Taxpayer's may not elect the ASC method on an amended return if they used the regular method for that year on an original or a previously amended return.
5. How do I efficiently audit this issue?	• The two most common approaches to auditing the research credit are: ➤ <u>Project focused</u> – start with the project(s) and drill down to the employees' activities for developing the qualifying business component. This approach cannot be used if the taxpayer fails to allocate the total QREs wages by project. ➤ <u>Employee focused</u> – start with the employees and verify their QRE wages by drilling back to the projects they worked on during the year and determine the extent they performed activities for developing qualifying business components on such projects. (This approach cannot be used if the taxpayer fails to allocate each employee's (or sampled employee's) total QREs wages or time to the projects.) • Under either approach, employee interviews (see Step 6 below) may be necessary to gather facts to determine the proper amount of the credit. • If neither approach can be used, then disallowance of the credit for lack of substantiation should be considered. • In order to qualify under IRC §41(b)(2)(A)(i) and Treas. Reg. §1.41-2(d)(1) the wages paid to an employee must have been paid or incurred for qualified services (i.e. actual conduct, direct support, or direct supervision of "qualified research") performed by the employee. a) If an employee has performed both qualified services and nonqualified services, only the amount of wages allocated to the performance of qualified services constitutes qualifying wages. In the absence of another

Credit for Increasing Research Activities
10-Step Audit Tool

Steps	Items to consider:
	method of allocation that the taxpayer can demonstrate to be more appropriate, the amount of qualifying wages must be determined by multiplying the total W-2 wages paid to or incurred for the employee during the taxable year by the ratio of the total time actually spent by the employee in the performance of qualified services for the taxpayer to the total time spent by the employee in the performance of all services for the taxpayer during the taxable year. If the employee's W-2 wages allocated to qualified services constitute at least 80% of the W-2 wages paid to or incurred by the taxpayer for the employee during the taxable year, then all of the services performed by the employee for the taxpayer during the taxable year are considered qualified services. Treas. Reg. §1.41-2(d)(2). b) This requires the taxpayer to identify the specific §41(d)(2)(B) business components each employee was developing under each project, and the amount of time each employee spent performing qualified research to develop each business component under each project. If the taxpayer cannot identify the business components the employee was developing, then none of an employee's wages may be allocated to qualified wages because an employee cannot be performing qualified research unless the employee was engaged in "the development of a new or improved business component of the taxpayer." IRC §41(d)(1)(B)(ii).
6. What is the purpose of interviewing the taxpayer's employees?	• The interviews have a dual purpose: 1. If estimates were used by the taxpayer, the first purpose is to obtain information to determine whether the taxpayer's estimates have a credible evidentiary basis. 2. The second purpose is to obtain additional information on the activities performed by the employees to determine the extent they performed qualified research on specific projects.
7. How to determine which employees to interview?	• Taxpayers usually determine QREs by estimating a "qualified percentage" and applying to each employee's wages. Identify the person who estimated those percentages. If a taxpayer claims the percentage was jointly determined by taxpayer and the consultant, ask the taxpayer to identify who made the final decision as to what the percentage would be. Interview that person to determine the basis for the estimated percentages. The percentages, and all assumptions made in determining them, must be based on credible evidence showing a reasonable basis existed for the estimate. Otherwise, the estimate is not allowable. See <i>Shami</i> and <i>Suder</i> cited in part 4 above. • In regards to Purpose #2 under Step 6, pick a sample of employees to be interviewed : ➤ If there is a large pool of projects or employees, select the projects or the employees to consider using a statistical sample, contact a CAS to assist with this step. ➤ If there is a small group of projects or employees (e.g., less than 20), use a judgment sample. The sample size should be large enough to cover the bulk of the QREs (80% is recommended).
8. Once employees are selected for interview, what information should be gathered?	• Prior to the interview: ➤ The taxpayer must identify the specific qualifying business component(s) worked by each employee for each project sampled under Step 7. ➤ The taxpayer should provide all of the records for each sampled project and the activities performed by each sampled employee who worked on each sampled project.

Credit for Increasing Research Activities
10-Step Audit Tool

Steps	Items to consider:
	- For guidance on interviews see: ➤ LB&I: Follow the “Interview Procedures” on the LB&I General Business Credit IPG-Research Activities webpage under Audit Tools in preparing and conducting interviews. ➤ SB/SE: See the SB/SE Research Tax Credit webpage. - Interview questions should be tailored to ascertain: ➤ Activities the employee performed on each sampled project during the relevant tax year, ➤ Time spent on those activities, ➤ Business components being developed or improved under each project by virtue of those activities, and ➤ Any other facts necessary to determine whether the activities are qualified research activities. If the taxpayer used estimates to quantify the qualifying wages or time, the estimates and all assumptions made in determining those estimates must be based on credible evidence. Otherwise, the estimates are not allowable. See <i>Shami</i> and <i>Suder</i> cited in part 4 above.
9. Establish the amount and extent of qualified research.	- For each sampled employee and project, the examiner needs to determine the extent of qualified research allowable as defined under IRC §41(d), based on the records provided by the taxpayer and the information obtained through interviews. - Consider the exclusions under IRC §41(d)(4), especially the funded research exclusion, which is often an issue for engineering firms, architectural firms, contractors and others. - Once it has been determined what activities are considered to be “qualified research,” a determination needs to be made regarding the amount of allowable QREs pursuant to IRC §41(b) which relate to the qualified activities. - For those projects or employees not included in the sample, the examiner will need to determine what QREs (if any) will be allowed. Understand the methodology employed by the taxpayer for determining QREs pursuant to IRC §41(b).
10. Consider assertion of appropriate taxpayer penalties and referrals of return preparers or promoters.	- Refer to the Penalty Handbook (IRM 20) and Servicewide Penalties webpage for guidance on the assertion of penalties. - Assess taxpayer’s overall compliance with recordkeeping requirements under IRC §6001. - If examining an originally-filed return, consider whether any of the IRC §6662 accuracy-related penalties apply. - If examining a claim for refund, consider whether the IRC §6676 penalty applies. - Examiners should also assess whether IRC §6662A or §6707A penalties are applicable if the credit is a reportable transaction as defined in Treas. Reg. §1.6011-4(b). Prior to proposing IRC §6662A or IRC §6707A, examiners should consult with local Counsel. - Be alert to potential violations of Circular 230 and submit a referral to the Office of Professional Responsibility (OPR) using Form 8484 as warranted. - A referral should be considered for promoters, return preparers, material advisors, authors of legal opinions, or anyone else who was directly or indirectly involved in the promotion of improperly claimed credits. ➤ SB/SE examiners may submit referrals to the SB/SE Lead Development Center (LDC) using Form 14242. ➤ LB&I examiners should follow the appropriate process when identifying suspected cases of material advisor or promoter activities, including referral to the Office of Tax Shelter Analysis (OTSA) when warranted.

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To:		Subject: Research Tax Credit IDR-Follow Up
		Submitted to:
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Description of Documents Requested:

Provide the following documents and information for the tax year ended XX.

EXAMINER NOTE: If the examiner opts to limit scope to a sample of projects, modify the narrative below. Remove this note prior to sending IDR to the Taxpayer/POA

1. **Qualified Research Activities-** Only costs incurred conducting "qualified research" activities are eligible for the research credit. IRC § 41(d)(1) defines qualified research as research satisfying a four-part test. For each research activity for which research expenditures were incurred and claimed as part of the research credit, provide the following:
 - a. An explanation and supporting documentation to substantiate that the related research activities meet the following statutory requirements (known as the four-part test):
 - i. Expenditures may be treated as specified research or experimental expenditures under IRC § 174, in accordance with IRC § 41(d)(1)(A) (known as the section 174 test). Specifically, provide documents that show, for each claimed business component, what the uncertainty intended to be resolved by research was, when that uncertainty existed with respect to the research, that research was conducted in an experimental or laboratory sense, and that the expenses were reasonable.
 - ii. Research was technological in nature in accordance with IRC § 41(d)(1)(B)(i) (known as the discovering technological information test). Specifically, describe in detail the information sought to be discovered by the research and the specific scientific principles that were relied on in performing the research.
 - iii. Expenditures incurred for the development of a new or improved business component of the taxpayer in accordance with IRC § 41(d)(1)(B)(ii) (known as the business component test). Specifically, to the extent not already provided, provide a list of business components included in the credit computation for each tax year, a description of how it was new or improved, and an explanation that it was developed for a permitted purpose.
 - iv. Substantially all (80% or more) of the activities constitute a process of experimentation in accordance with IRC § 41(d)(1)(C) (known as the process of experimentation test).
 1. What was the hypothesis for resolving the uncertainty?
 2. What alternatives were considered and tested to eliminate the uncertainties?
 3. Describe the tests performed and the results to eliminate alternatives.

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4. How did the test results refine the experiments to decide on the best alternative?
 5. Date uncertainty was eliminated/resolved or date the project failed or terminated.
2. **Provide supporting documentation for sampled items:**
- a. Project accounting records, computational spreadsheets, or other documentation specifying the amount of related project research expenses for wages, supplies, or contract research expenditures;
 - b. Materials explaining the projects or business components, including brochures, pamphlets, press releases, and other similar documents;
 - c. Patents and applications for patents;
 - d. Presentations or memoranda requesting budgetary authority for the projects or business components;
 - e. The internal authorization policy required by the taxpayer to approve a project or business component; and
 - f. Summaries, progress reports, or any other documentation required by the taxpayer to approve a project or business component.
3. **Research Wages:**
- a. Identify general ledger accounts included in the claimed qualified wages and provide a description of the accounts with year end balances for each account for the taxable year under examination.
 - b. Project accounting records, workpaper or other document summarizing all wages expenses associated with the project.
 - c. For all taxpayer employees whose wages were claimed, in whole or in part, as qualified research expense, provide the following for each employee
 - i. Name.
 - ii. Employee Number (if applicable).
 - iii. Job title.
 - iv. Description of duties and a written job description.
 - v. Educational or training background.
 - vi. The start date of employment with the taxpayer and all job positions held with the corresponding dates.
 1. If the employee works for multiple entities under common control, provide the W-2s and a description of how time between the entities was determined.

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- vii. Total number of hours the employee spent in the performance of all activities during the year.
- viii. A list of all the projects or business components the employee worked on and indicate if the employee directly conducted research, directly supported research, or directly supervised research.
- ix. For each project, business component, or activity identified, indicate the number of hours each employee spent performing qualified services and describe your method of contemporaneously tracking those hours. If you did not have a contemporaneous tracking system in place for the house claimed, describe how you estimated the hours for purposes of claiming a research credit, including all assumptions made in arriving at the estimates, and provide all evidence in support of your estimates.
- d. If any of the employees whose wages were claimed, in whole or in part, as qualified research expenses worked outside the United States for any portion of time, identify the service dates and wages paid to such employees for the services performed outside the United States.
- e. Copies of all employee interview notes (e.g. handwritten or typed notes, transcripts, etc.) related to the determination of research wages.
- f. Provide the dates the interviews were held.
- g. Provide the methodology for calculating or estimating the wages used in the credit computation. For example, did they start with W-2 wages for the year to use in the credit computation?
- h. Provide documentation to substantiate the amount of wages and number of hours or percentage of time allocated as qualified research wages for each employee including but not limited to payroll, Form W-2, project, timekeeping records, calendars, project reports, or other documentation.
- i. Does the company have project time tracking software to track employees time? If so, what software (e.g., JIRA, Microsoft Project, Clarity) and what information is recorded through the software. Was it relied upon for use in the research credit computation? If not, why not?
- 4. **Research Supplies**-For each research project, business component, or activity classified as a qualified project for purposes of claiming the research tax credit which included supplies provide:
 - a. A description of the supplies used in each business component, and how those supplies were identified as qualified supplies
 - b. An explanation of how the supplies were used in the relevant business

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- component, and when in the research process they were used
- c. Project accounting records, workpapers, or other documents supporting all supply expenses associated with each business component.
- d. Invoices for the supply expenses claimed.
- e. Answers to the following:
 - i. Were any of the items included in supplies capitalized for book purposes?
 - ii. Were any of the supplies depreciated for tax purposes?
 - iii. Did you include production tooling or vendor tooling in this category?
 - iv. Were there any supplies used for projects or business components that you did not claim the expenses for in the research credit calculation? If yes, what, and why?
 - v. Were any of these supplies included in the cost of goods sold?
- 5. **Research Contract Expenses**-For each research project, business component, or activity classified as a qualified project for purposes of claiming the research tax credit which included contract expenses provide:
 - a. Project accounting records, workpapers or other document summarizing all contract research expenses associated with the project, business component, or activity.
 - b. An explanation of how the contractor's activities met each part of the four-part test as described in item #1, above.
 - c. Invoices for the contract expenses claimed.
 - d. A list of all contract research vendors for the credit year.
 - e. Contracts between you and the contractor, including all modifications, agreements, letters or memorandums of understanding, and similar documents for the performance of research on behalf of the taxpayer.
 - f. For each contract, provide contractor documentation and presentation (e.g. requests for proposals, bid documents, and quotes).

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Provide the following documents and information for the tax year ended XX (if more than one year is at issue, please provide the following information by tax year, not as a combined production).

1. General Items

- a. Organization charts or similar documents describing the entire organization. Organization charts should also identify research personnel and where the research activities fit within the overall structure of the business, as well as identify management and other administrative functions. If the research is performed by one or more entities under common control, provide organization charts for each commonly controlled entity, whether it did research or not.
- b. The names and titles of individuals with decision making authority (in each of the functions, such as units, divisions, departments, and committees) that had responsibility for approving, monitoring, and/or reviewing research initiated, and the names and titles of each individual's direct supervisor.
- c. Accounting, financial, policy manuals, or other documents describing the company's policies, procedures, or methodologies used to identify research projects, determine qualified research projects for purposes of claiming the IRC § 41 research tax credit, and capture the associated research expenses.
- d. List of patent applications or patents granted that are attributable to activities performed during the year(s) under examination for which expenses have been claimed, in whole or in part, as qualified research expenses.

2. Research Tax Credit Support

- a. If a research tax study was prepared to determine the qualified research expenditures (QREs), provide:
 - i. a copy of the study;
 - ii. all documents provided to the consultant for the purposes of determining the research tax credit and preparation of the associated study, including, but not limited to, project lists, research expenses, contracts, forms, questionnaires, templates, and other documents;
 - iii. the engagement letter(s), contracts, and agreements between the taxpayer and the consultant used to prepare the research tax credit study or the research credit amounts claimed on the tax return, and
 - iv. copies of interviews and handwritten or typed notes of such interviews or other documents of discussion with company officials or employees conducted for the purpose of determining qualified research projects or

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related research expenses.

- b. If a research credit study was not prepared, please provide the following information:
- i. The steps used to gather the research expenses claimed.
 - ii. The methodology utilized in deciding which expenditures to include or exclude to calculate the expenses claimed.
 - iii. If the credit is computed under a cost center or department approach, provide a written description or profile of the function of that cost center or department.
 - iv. If the credit is computed under a project or job cost approach, provide a written description or profile of the function or purpose of the project(s) or job(s).
 - v. Copies of the research credit calculation workpapers that support and reconcile to the amounts on the Form 6765 (preferably in the original electronic format such as Excel spreadsheets, Word documents, or PowerPoint presentations). The workpapers should contain wage, supply, and contract research expense accounts by the appropriate name and account number.
 - vi. Names and positions of the employees or other persons who assembled the qualified research project list and associated research expenses.

3. Research Activities Identification

- a. A complete list of all projects or business components (qualified and non-qualified) claimed for the credit during the tax year. Provide the information in Excel format (if possible) and include:
- i. business component name, number, or other identifying label,
 - ii. description of the business component and contemporaneous documentation about it,
 - iii. time frame for each business component including the beginning and ending dates of the research, and identifiable phases or milestones (e.g. Approved to Proceed, Design Review documentation, and/or Released to Manufacturing dates),
 - iv. total internal budgeted cost for each business component,
 - v. total actual cost incurred for each business component including tracking data by phase, if available,
 - vi. total actual cost by employee by business component for each tax year, and

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- vii. total business component costs included in the computation the research.
4. **Funded Research (if applicable)** -For each research project or business component that was developed on behalf of a client or funded by grant, provide the following:
 - a. Copies of all agreements (not only research contracts), including, but not limited to, contracts, grants, or other agreements and any subsequent amendments to the original agreements (including change orders).
 - b. Identify each project or business component, and to which project or business component each agreement pertains.
 - c. The dollar amount(s) and dates(s) of each agreement if not specified in each agreement.
 - d. A summary of contractual terms and conditions including:
 - i. Payment clauses (i.e. lump sum, fixed price, cost plus, cost plus fixed fee, cost plus with a cap)
 - ii. Inspection and acceptance clauses
 - iii. Warranty clauses
 - iv. Termination for default clauses
 - e. For any contracts you claim are unfunded that you included as a qualified research activity, highlight the specific provisions or language in each contract which supports this conclusion.
 - f. Description of any rights you claim to have retained, and why they are substantial.
 5. **Statistical Sampling (if applicable)** -If sampling procedures were utilized in the determination of the research tax credit provide the following information:
 - a. Statement as to whether the sample was a judgment or statistical sample following the procedures outlined in Revenue Procedure 2011-42.
 - b. If a judgment sample, provide:
 - i. a description and explanation of the sampling methodology utilized,
 - ii. The name, employer, and job title of each individual who determined the sample size and identified the project(s) included in the sample, and
 - iii. a list of the projects included in the sample.
 - c. If a statistical sampling methodology was used (not a judgement sample) based on Revenue Procedure 2011-42, **see the attached statistical sampling IDR.**
 6. **Fixed-Base Percentage- Regular Credit Method**
 - a. Calculations, in excel format if possible, to support fixed-base percentage and the gross receipts used in the base amount computation.
 - b. An explanation and supporting documentation describing the basis for using start-

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- up company rules (if applicable) to compute the base amount.
- c. An explanation of the methodology or approach used to identify the first year the company incurred research expenses.
- d. An explanation of your efforts to treat base year QREs consistently with the credit year(s). if adjustments were made to a previously used fixed-base percentage, describe the rationale for the adjustment.
- e. A list of all acquisitions and dispositions between the base years and the credit year(s).
- f. A detailed list of every business component(s) in each base year.
- g. If estimates were used to determine the QRE amounts in the base years, provide:
 - i. An explanation as to the basis used when making estimates.
 - ii. An explanation of how you determined that qualifying expenses were incurred in the relevant tax years.
- h. If estimates or extrapolations were used to determine any portion of the gross receipts for the base years, describe the methodology used to determine the gross receipts, and provide the dollar amount of the gross receipts, by year, which were estimated or extrapolated.
- i. If estimates were not used for either the QREs or gross receipts in the base years, provide the documents on which you relied for determining the base year numbers.

7. Prior 3 Years Qualified Research Expenditures ("QREs") - Alternative Simplified Method

- a. Provide the QREs in each of the three tax years preceding the tax year for which the research credit is being claimed.
- b. A detailed list of every business component(s) in each of the three years preceding the credit year(s).
- c. List the divisions and/or subsidiaries that were acquired or disposed of during the three tax years preceding the tax year for which the research credit is being claimed and how, if at all, the QREs for the tax years were revised as a result of the acquisitions or dispositions.
- d. An explanation of your efforts to treat the QREs of the three preceding tax years consistently with the credit year(s). if adjustments were made to a previously used numbers, describe the rationale for the adjustment.

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In Accordance with Revenue Procedure 2011-42, provide the following in support of the Research and Development Tax Credit Study for the tax year ending XX:

1. The sampling plan outlining the examination objectives and sampling methodology used. This should include the following items listed in Appendix A of Revenue Procedure 2011-42:
 - a. the objective of the plan including a description of what value is being estimated and for which tax year(s) the estimate is applicable;
 - b. population definition and reconciliation of the population to the tax return;
 - c. definition of the sampling frame;
 - d. definition of the sampling unit;
 - e. source of the random numbers, the starting point or seed, and the method used in selecting them;
 - f. sample size, along with supporting factors in the determination;
 - g. method used to associate random numbers to the frame;
 - h. steps to be taken to ensure that the serialization of the frame is carried out independent of the drawing of random numbers;
 - i. steps to be taken in evaluating the sampling unit; and
 - j. the appraisal method(s) to be used in appraising the sample.
2. Provide the documentation to support the statistical application, sample unit findings, and all aspects of the sample plan and execution. The information should include all the following items: (Appendix B of Revenue Procedure 2011-42)
 - a. The seed or starting point of the random numbers.
 - b. The pairing of random numbers to the frame along with supporting information to retrace the process.
 - c. List of the sampling units selected and the results of the evaluation of each unit.
 - d. Supporting documentation such as notes, invoices, purchase orders, project descriptions, etc., which support the conclusion reached about each sample item.
 - e. The calculation of the projected estimate(s) to the population, including the computation of the standard error of the estimate(s).
 - f. A statement as to any slips or blemishes in the execution of the sampling procedure and any pertinent decision rules.
 - g. Computation of all associated adjustments. (An example of an associated adjustment would be the amount of depreciation allowable based on a probability determination of an amount capitalized).

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3. Did you follow the technical formulas and definitions found in Appendix C to Rev. Proc. 2011-42? If not, in whole or in part, identify which technical formulas and definitions were not followed, and provide the technical definitions and formulas you used.
4. Provide the following electronic files (preferred formats: Excel, Access, CSV, fixed length txt)
 - a. original, unaltered population file,
 - b. refined population file,
 - c. numbered population file used to select the sample, and
 - d. final sample selection.
5. Provide a detailed description of the company's accounting systems data that were used to identify the research business component and related cost for developing the business component. The description should provide information about the data contained in the system, relationship between the systems, how system was used to determine sample unit QRE amount and any manual process used to calculate the sample unit QRE. Also, please identify the general ledger accounts and their balances from which the labor, supplies and contract research expenses were recorded.
6. Identify all population refinements, dollar cutoffs, and transactions or categories removed for separate treatment.
7. Provide an electronic file that contains the list of ALL sampling units selected and the results of the evaluation of ALL units.
8. Identify any and all sample units that could not be evaluated and the reason why the unit(s) could not be evaluated. If a sample unit was replaced, identify the sample unit that was the replacement.
9. For those sample units for which documentation cannot be provided, provide a written explanation as to why documentation is not available and explain how a conclusion (qualified or not qualified) was determined.
10. Please furnish the statistical basis for applying the re-scaling factor computed from the attribute sample results to the estimated QRE dollars, if attribute sample utilized.
11. All documentation and data which will enable the IRS to recreate your sample. This should include all reports and computer files that were used in the population refinement process and a reconciliation of the books to the initial population.

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Issue-Specific Content for Lead Sheet Issue Reference Guide

Issue Name:	Form 3800 – Credit for Increasing Research Activities (Form 6765)
IRC §	41, 174
Revision Date:	08/2021
IMF/SAIN Code(s):	61050a, 526-32, 604-06, 605

General Information – Procedures, Job Aids, Contacts:

- [IRM 21.7.4.4.8.3.5 - Form 6765, Credit for Increasing Research Activities](#)
- [Notice 2008-39](#) - Requirements for Form 1120 Research Credit Claims
- [Knowledge Base>Corporate/Business Issues & Credits>General Business and Energy Credits>Credit for Increasing Research Activities - IRC 41](#)

Cases will be assigned Freeze Code 17 which requires [mandatory review](#) by the [SBSE SME Senior Program Analysts](#) before a report may be issued to the taxpayer.

SMEs are available for assistance throughout the examination.

Audit Steps:

Preplan:

Review the [Credit for Increasing Research Activities – IRC 41](#) Book on Knowledge Management (KM) for guidance.

- The [SB/SE Administrative Procedures](#) chapter contains technical guidance, job aids, and contact information for R&E Subject Matter Experts (SME).
- Refer to the IRC §41 Research and Experimentation Credit [Checklist of Issues](#) as a guide to all potential issues.

Review Form 3800 and Form 6765 - Credit for Increasing Research Activities for audit year, prior/subsequent years, and related investors if applicable. Consider history of credits claimed, method used, 280C election, carrybacks, carryovers, IRC 41(g) limitations, and statute of limitations.

Conduct research to obtain a general understanding of the taxpayer's trade or business and types of research which may be conducted. Resources may include IDRS, company webpage, the state's Secretary of State business portal, internet research (Google, Yahoo, etc.) and Accurint.

[Control Group Rules](#): Was the taxpayer a member of a controlled group or group under common control? If so, apply the special rules under IRC 41(f).

Pre-Interview:

Prior to the initial appointment, request the taxpayer's workpapers used to compute the research tax credit. If a consultant was used, request a copy of the consultant's research tax credit study, the contract or engagement letter, and the supporting workpapers the consultant relied on. [Information Document Requests](#) are available on KM.

Issue-Specific Content for Lead Sheet Issue Reference Guide

Review the taxpayer's workpapers or consultant's research tax credit study (if prepared) to determine the basis or methodology utilized to determine or compute:

- a. [Qualified Research Activities \(QRA\)](#), and whether the activities were determined by business component (IRC 41(d)(2)). Consider the 4-part test (see below).
- b. [Qualified Research Expenses \(QRE\)](#), and whether the expenses were associated with a specific business component for activities conducted during the year at issue.
- c. [Base year QREs and fixed base percentage](#) (for the regular credit; section A of Form 6765) or QREs for three prior years (for the alternative simplified credit, ASC; section B of Form 6765). IRC 41(c).
 - Was the base period correct? The fixed base percentage calculation requires a determination of the QREs in the base years (1/1/1984-12/31/1988 unless start-up company as defined in IRC 41(c)(3)(A)).
 - If estimates were used, did the taxpayer have credible evidence to support the estimate? Was the methodology consistent with the method used in the years at issue?
 - If the taxpayer elected the ASC, was the election made properly?
- d. Sampling methodology and process for extrapolation of expenses to the population.
- e. Available project-related, timekeeping, or other records relied upon. Consider whether the taxpayer has a reasonable basis for any assumptions and estimates relied upon.
- f. Review the nature, types, and amounts of QREs for reasonableness. Allocation of a significant amount to high wage earners, wages for administrative or sales employees, and the same allocations in multiple years may be indicative of an overstated credit.

Consider consultations or referrals for LB&I Engineers or Computer Audit Specialist (CAS) assistance using the [Specialist Referral System \(SRS\)](#).

- a. First, contact a SME at the [R&E Mailbox](#) to discuss the case. The SME will help determine if a referral for a LB&I Engineer or Computer Audit Specialist (CAS) is required.
- b. CAS may be useful when statistical sampling was used to determine the credit.

Qualified Research Activities:

Secure from the taxpayer a list of the new or improved business component(s) associated with the product(s) developed or improved. IRC 41(d)(1). A business component is defined in IRC 41(d)(2)(B) as a product, process, software, technique, formula, or invention.

Determine the methodology employed to ascertain which activities (if any) constitute qualified research. IRC 41(d).

Evaluate each business component using the "four-part test" which requires the taxpayer to substantiate that the activity occurred during the tax year and:

- a. may be treated as an **IRC 174 expense**,
- b. is undertaken to discover information that is **technological in nature**,
- c. is useful in the development of a **new or improved business component**, AND
- d. substantially all the activities constitute a **process of experimentation**.

Determine if any of the activities are [excluded](#) for the research credit. IRC 41(d)(4).

- a. [Research after commercial production](#)
- b. Adaption of existing business components
- c. Duplication of existing business components

Issue-Specific Content for Lead Sheet Issue Reference Guide

- d. Surveys, studies, market research, routine data collection or quality control testing
- e. Development of certain internal use computer software
- f. Foreign research
- g. Research in the social sciences, arts, or humanities
- h. [Funded research](#)

Qualified Research Expenses:

The approach to auditing the QREs will use a combination of projects and employees and is dependent on the facts of the case.

- You may review the project(s) and drill down to the employees' activities for developing the qualifying business component.
- Once qualifying business components are identified, review the employee QRE wages by drilling back to the activities they conducted during the year and determine the extent they performed qualified research on business components.
- Determine whether the [Substantially All Requirement](#) is met. If not, the taxpayer has the option and the burden to Shrink Back to a subset of the business component that meets all requirements of IRC 41(d)(1).
- You may use a combination of these and any other methods deemed necessary.

Under any approach, employee interviews may be necessary to gather facts to determine the proper amount of QREs. See [Interview Job Aids](#).

Verify that allocated wages are limited to persons 1) directly engaged in qualified research or 2) directly supervising or 3) providing direct support of research activities that are qualified research. IRC 41(b)(2)(B).

- a. Determine and verify the wages included in qualified services. IRC 41(b)(2)(D). Review project-related, cost accounting or other records used by the taxpayer. Review documentation relied upon for any estimates such as payroll records, timesheets, calendars, project reports or notes, employee interviews, questionnaires, etc.
- b. Conduct interviews of key person(s) responsible for determining wage and time allocations or estimates.
- c. Conduct interviews of current and former employees of the taxpayer whose wages were allocated to qualified services.

The percentages and all assumptions must be based on credible evidence showing a reasonable basis existed for the estimate. Otherwise, the estimate is not allowable.

Determine and evaluate [supply costs](#) included in the total QREs and verify only allowable supply costs associated with QRA are included. IRC 41(b)(2)(C). If supply expenses do not represent a material amount, consider a limited scope review of these expenditures.

Determine and evaluate [contract research expenses](#) included in total QREs and verify only allowable contract expenses are included. IRC 41(b)(3). If contract research does not represent a material amount, consider a limited scope review of these expenditures.

Pilot Models- Prototypes

A “pilot model” is a representation or model of the product itself for which there is uncertainty regarding the capability or method for developing or improving the product or the appropriate design of the product. It is constructed to include all the technical characteristics and performances of a potential new product. The representation or model of the product is used to evaluate uncertainty concerning the product during the development or the improvement of the product. An example of a “pilot model” would be an aircraft manufacturer that is developing a new aircraft and produces a model of the new aircraft to use in flight tests in developing the design of the new aircraft.

A manufacturer that is developing a new component for a piece of machinery may produce several models of the new component to use in testing the design of the new component. If the models are constructed to be used for testing in a laboratory sense to resolve the uncertainty of the component’s design, the costs incurred to produce the model components and the costs incurred in using the models to evaluate the uncertainty in developing the new component are IRC § 174 costs. However, costs incurred in the production of components after the elimination of uncertainty concerning the development of the component are not eligible IRC § 174 costs. Once development uncertainty is eliminated, further costs are no longer IRC § 174 costs.

Examiners should scrutinize component costs of custom-designed property to determine whether the item and/or its subcomponents are “pilot models” as defined under Treas. Reg. § 1.174-2. Note whether an item or subcomponent of an item is a “pilot model” is question of fact. The mere naming of an item as pilot model or “prototype” is not controlling.

IRC 174 Final Regs- 2014

- Consistent with proposed regulations, the final regulations define a “pilot model” as any representation or model of a product that is produced to evaluate and resolve uncertainty concerning the product during the development or improvement of the product. The term includes a fully-functional representation or model of the product or, to the extent the component of a product rule applies, a component of the product.
- In response to comments on the proposed regulations, the final regulations provide that taxpayer can deduct expenses for multiple pilot models.
- Identification of product or component of larger product as pilot model depends upon the facts and circumstances.
- Nature of the activities determines whether the costs are research and experimental expenditures.

- Testing of the product does not necessarily mean that research was conducted under IRC § 174.
- While quality control testing expenses do not qualify under IRC § 174 (see Treas. Reg. § 1.174-2(a)(3)(i)), quality control testing does not include testing to determine if the design of the product is appropriate. Treas. Reg. § 1.174-2(a)(4).
- The final regulations specifically provide that costs relating to the production of a product after the uncertainty relating to the development or improvement of the product is eliminated do not qualify under IRC § 174.

Common TP position

“each part of a design identified as a “press release” part is considered a working prototype and; therefore, all costs are considered qualified as IRC §41 and further examined for compliance with the requirements of the research tax credit”.

The IRS asserts that this is an erroneous statement. Under the statutes and regulations, the test is not a type of product, etc., but the nature of the activities involved. For example, expenses to produce a prototype are not qualifying expenses. They are manufacturing expenses (e.g., COGS).

Treas. Regs. § 1.41-4(a)(5)(i) states: “[u]ncertainty 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.”

Treas. Reg. § 1.174-2(a)(1) states with respect to qualifying expenditures that they would qualify as research or experimental expenditures only depending on the nature of the activity to which the expenditures relate, not the nature of the product or improvement being developed.

Treas. Reg. § 1.174-2(a)(1) further states that “[t]he term research or experimental expenditures, as used in section 174, means expenditures incurred in connection with the taxpayer’s trade or business which represent research and development costs in the experimental or laboratory sense [emphasis added].”

Employee Interview Questionnaire – IRC §41 Research Credit

For the period [date 1] through [date 2]

These are questions that may be incorporated into your employee interviews for the R&E issue. Some questions may not apply to certain taxpayers - please tailor them to your taxpayer. For example, additional specific questions may be added based on your review of the credit study.

Name of Employee _____ Job Title _____
Date _____ Department _____

Background

1. Provide a brief description of your educational background. Include both formal and informal education, degrees obtained, and fields of study pursued.

2. Provide a brief description of your professional experience (e.g., R&D, manufacturing, supervisory, etc.) through [date 2].

3. Provide the period(s) during which you worked for Company and your corresponding job title(s).

Time Period	Job Title

4. Provide a brief description of **all** your duties and responsibilities for each position held during the period beginning [date 1] and ending [date 2]. This should contain all work done for every business unit, including routine, administrative type responsibilities and unusual, non-recurring activities, such as training, recruiting, etc. Include a rough estimate of the percentage of time devoted to each duty in an average week.

Job Title	Date Held	Duties and Responsibilities

5. During the period beginning [date 1] and ending [date 2], were you a salaried employee or an hourly employee?

Salaried _____ Hourly _____

6. Is there an employment contract?

Employee Interview Questionnaire – IRC §41 Research Credit

7. Did the salary include a bonus? How was the salary/bonus amount determined? i.e. is it tied to company sales/profitability, tied to success of research, or a set base amount.

8. Was any portion of the salary compensation for serving on board of directors or for other services?

Projects

1. List all qualified projects or business components you worked on for the period beginning [date 1] and ending [date 2], and include: a description of each project or business component listed (i.e., overall project purpose, timeline, need for activities) and the business unit for which the project or business component was done. Indicate what contemporaneous documentation exists that supports these statements, such as engineer's notebooks, progress reports, or production development process documents.

Project/ Business Component	Business Unit	Description

2. For each project or business component listed, describe your role, including the specific qualified activities performed or supervised, and the tasks performed chronologically. Indicate what contemporaneous documentation exists that supports these statements.

Project	Role/Tasks	Timeframe

Employee Interview Questionnaire – IRC §41 Research Credit

3. Who was your immediate supervisor and who was the project manager on each project?

Project	Supervisor	Project Manager

4. Are you a supervisor/manager? Y/N. If yes, list any employees you supervised or managed and their role in the qualified activities (process, project, etc.).

Project/Business Component/Activity	Supervised Employee	Role of Employee

5. For the projects you worked on, describe how the projects or business components met the technical uncertainty test:

- a) Specifically identify the technical uncertainty encountered.
- b) Explain how the employees identified the technical uncertainty.
- c) Identify what aspect of the project or business component the employees were unable to develop due to that technical uncertainty.
- d) Describe in detail why the employees were uncertain about that technical aspect of the project or business component.

Project/Component	Response Items A-D

6. For the projects you worked on, a process of experimentation (POE) requires the use of the scientific method, not merely taking steps to resolve uncertainty or to improve a product. For each technical uncertainty, ask the interviewee to describe in detail how the uncertainties and challenges were resolved, including:

- a) When did the research begin/end?
- b) What capabilities did the project team possess?
- c) What was the hypothesis for resolving the uncertainty?

Employee Interview Questionnaire – IRC §41 Research Credit

- d) What alternatives were considered and tested by the employees in their attempts to eliminate those uncertainties?
- e) What tests/scientific experiments were performed (describe them) to gather data and eliminate alternatives to resolve the uncertainty?
- f) What were the results of those tests? Were results compiled? How? What type of documentation did you maintain for these tests?
- g) How did the employees analyze those test results to evaluate each alternative and what were the results of the analysis?
- h) Identify the employees other than yourself who conducted the tests/scientific experimentation and analyzed the results.
- i) What alternative was finally selected to resolve the uncertainty and why?
- j) How did the test results and the employees' analysis of those test results cause the employees to further refine their experiments to decide upon the best alternative?
- k) What principles of physical or biological science, engineering, or computer science were relied upon when conducting the tests/scientific experiments? Please explain how they were used in the conduct of a process of experimentation and what specific principles were utilized.
- l) Discuss the conclusions reached with respect to each of the alternatives attempted and which alternative was selected. Were any of the activities/projects/BC not successful?
- m) When in the project timeline were these challenges resolved?

Project/Component	Response Items A-M

7. How do you document research activities? Engineer notebook, Progress Reports, other?

8. Did any of the projects or BC result in a patent application? If so, list the patent number(s)?

9. Were outside contractors employed on the projects or BC?

- a) If so, what role did they perform?
- b) What activities were performed by the outside contractors to resolve uncertainties and which of these activities did you consider qualified?
- c) Who within the company oversaw the outside contractors' work?

Employee Interview Questionnaire – IRC §41 Research Credit

10. Were supplies consumed during your work on the projects or BC?
- a) If so, what supplies were used or consumed and by what department?
 - b) How were the costs for these supplies tracked?

11. What about the projects or activities was a new or an improved method to achieve a result in terms of improved functionality, performance, reliability, or quality?

12. When evaluating projects/work, what technical risks are considered? Describe how technical risk was evaluated or rated.

13. Are the projects/BC new or adaptations or extensions of existing work?

Allocation Basis

1. Approximately how many hours did you work during the period beginning [date 1] and ending [date 2]?

2. Did you ever work more than 40 hours per week? If so, approximately how often?

3. How many days of vacation/sick time did you take during the period beginning [date 1] and ending [date 2]?

4. Are you familiar with the cost accounting system and method used for costs identification or tracking of the project or BC. If yes, explain.

5. Explain how time was tracked for each separate project or BC or activity.

6. Did you provide any input or participate in the determination of the qualified activity percentage during the period beginning [date 1] and ending [date 2].

7. How much of your time was devoted to each of the projects or business components enumerated above and to any other miscellaneous activities not included in the projects or business components? (Please allocate your time to each activity/project/business component individually. This time can be in hours or percent of total time.)

Project/Activity/Business Component Description	Time Allocation

Employee Interview Questionnaire – IRC §41 Research Credit

8. How was this time allocation determined? (i.e. timesheets, time surveys, estimates, project reports, etc.) Please provide copies of any documents used to determine this time allocation.

9. If the time allocation was estimated did you perform the estimate for other employees? If so, how many employees did you perform estimates for and list the employee's names.

10. When completing the time allocation how was the performance of non-qualified activities (e.g., sales, standard QA/QC, administrative time, post-production time, etc.) considered and accounted for when estimating time for the qualified research activities.

11. Did you maintain supporting documentation on the projects or business components you worked on, such as project reports, project notes, timesheets, project calendars, feasibility studies, performance evaluations, problem/change logs, business system design documents, project work plans, post-implementation reviews, etc.? If so, please explain what was maintained and provide copies.

Attestation

1. Did you receive help from anyone within Company and/or from the representative in answering any of these questions/preparing for the interview??

Yes, I received assistance _____

No, I received no assistance _____

a) If yes, with which topics did the individual assist you (e.g., projects, background, cost/time tracking, etc.)

b) If yes, who provided the assistance?

Person(s) Assisting	Job Title(s) of Person(s)

2. Did you review any documents and/or notes in preparing for this interview Y/N? If so, provide the documents and/or notes to the IRS.

Name (print) _____ Phone No. _____

Signature _____ Mailing Address _____

Date _____

Interview Questionnaire – IRC §41 Research Credit

For the period [date 1] through [date 2]

These are questions that may be incorporated into your initial interview for the R&E issue. Some questions may not apply to certain taxpayers - please tailor them to your taxpayer. For example, additional specific questions may be added based on your review of the credit study.

Background

1. Have you filed a claim that would impact the research credit amount on the return under exam? Such as an original or second claim for a carryback credit or one reflecting a change to the original amount claimed.

2. What was the first year that you have claimed research credits on your income tax return? Why was it not claimed in prior years? If prior research credit years not under exam, was a research credit study prepared for those years and by whom?

3. What's different/new as compared to what you were doing before you claimed the research credit? What has changed in the way you do business? Who at the company now was employed during the prior years (base years)? What were their roles during those years? How are the credit year activities different, if at all?

4. Did you use estimates in any aspect of the computation? (base year, credit year, wages, etc.) Why? How? Who?

5. Please describe your business operations and what research activities you are involved in.

6. What do you understand qualified research to be?

7. What is your definition of a process of experimentation?

8. How do you define uncertainty as it relates to the research credit?

9. How did you know what projects had research being conducted?

Interview Questionnaire – IRC §41 Research Credit

Projects

10. Explain your projects in detail, what were they? What was the overall purpose of the project, timeline, need for research activities? What about the project or activity was a new or an improved method to achieve a result in terms of improved functionality, performance, reliability, or quality?

Project	Component	Description

11. Are the projects/components new or adaptations or extensions of existing work? Such as a new feature added to existing software vs creating a new software program.

12. What type of contemporaneous documentation exists for the projects such as engineer's notebooks, progress reports, production documents, project reports, project notes, timesheets, project calendars, feasibility studies, problem/change logs, business system design documents, project work plans, post-implementation reviews, etc.? If so, please explain what was maintained and provide copies.

Workflow Procedures

13. What is the work/project approval process at your company?

14. What are the procedures for obtaining funding approval (or the continuation of funding) for work/projects? Did the funding and/or timeline change on the qualified projects? If so, why?

15. Describe the product development process including the documents required for each phase of the process.

Interview Questionnaire – IRC §41 Research Credit

16. Describe how the projects or business components met the technical uncertainty test: (note if separate employee interviews are planned for all sampled projects this question may be asked during those interviews)

- Specifically identify the technical uncertainty encountered.
- Explain how the employees identified the technical uncertainty.
- Identify what aspect of the project or business component the employees were unable to develop due to that technical uncertainty.
- Describe in detail why the employees were uncertain about that technical aspect of the project or business component.

Project/Component	Response Items A-D

17. At the outset did the project team feel that they had all the requisite technical skills and equipment in place to have a high probability of succeeding in this project? If so, what was the estimated probability of success going into the project, and on what reasons was this probability based? Did this turn out to be the case, and whether yes or no, please explain.

18. A process of experimentation (POE) requires the use of the scientific method, not merely taking steps to resolve uncertainty or to improve a product. For each technical uncertainty, describe in detail how the uncertainties and challenges were resolved, including: (note if separate employee interviews are planned for all sampled projects this question may be asked during those interviews)

- When did the research begin/end?
- What was the hypothesis for resolving the uncertainty?
- What alternatives were considered and tested by the employees in their attempts to eliminate those uncertainties?
- What tests/scientific experiments were performed (describe them) to gather data and eliminate alternatives to resolve the uncertainty?
- Where did this experimentation take place, i.e. a lab, in the field, or in a variation thereof?
- What were the results of those tests? Were results compiled? How? What type of documentation did you maintain for these tests?
- How did the employees analyze those test results to evaluate each alternative and what were the results of the analysis?

Interview Questionnaire – IRC §41 Research Credit

- h) What alternative was finally selected to resolve the uncertainty and why?
- i) How did the test results and the employees' analysis of those test results cause the employees to further refine their experiments to decide upon the best alternative?
- j) What principles of physical or biological science, engineering, or computer science were relied upon when conducting the tests/scientific experiments? Please explain how they were used in the conduct of a process of experimentation and what specific principles were utilized.
- k) Discuss the conclusions reached with respect to each of the alternatives attempted and which alternative was selected. Were any of the activities/projects/BC not successful?
- l) When in the project timeline were these challenges resolved?

Project/Component	Response Items A-L

19. For each project/component, identify the employees who conducted the scientific experiment.

- a) What are the educational qualifications and job titles of the principal project development personnel?
- b) How were those qualifications utilized during the life of the project?
- c) Which staff members were the primary contributors and how did they make those contributions? Are they still with the company?
- d) Who was the project manager for the project?
- e) Did project staffing levels fluctuate up or down, and if so, why?
- f) Did all project team members work full-time on the project, or did they also have other responsibilities? Please explain any other responsibilities and what the split was between their R&E and non-R&E job duties. Include a rough estimate of the percentage of time devoted to each duty in an average week.

Project/Component	Response Items A-F

Interview Questionnaire – IRC §41 Research Credit

20. Were outside contractors employed on the projects or BC?

- a) If so, what role did they perform?
- b) What activities were performed by the outside contractors to resolve uncertainties and which of these activities did you consider qualified?
- c) Who within the company oversaw the outside contractors' work?
- d) How were the contract labor expenses tracked?
- e) Were any of the contract labor QREs estimates? Who determined the estimated amount?
- f) What documentation do you have for the contract labor QRE amount?

21. Were supplies consumed during your work on the projects or BC?

- a) If so, what supplies were used or consumed and by what department?
- b) How were the costs for these supplies tracked?
- c) Were any of the supplies QRE amounts estimates? Who determined the estimated amount?
- d) What documentation do you have for the QRE supplies amount?

22. Did any of the projects or BC result in a patent application? If so, list the patent number(s)?

23. What specific principles of science did you use and rely on in the research?

Qualified Research Expenses (QRE)

24. How were the QRE wage amounts determined? Did the salary/wage amount include bonus? How was the salary/bonus amount determined? i.e. is it tied to the company sales/profitability, tied to success of research, or a set base amount. Was any of the compensation for services other than wages such as board of directors? Are there employment contracts?

Interview Questionnaire – IRC §41 Research Credit

25. Are you familiar with the cost accounting system and method used for costs identification or tracking of the project or BC. If yes, explain.

26. Explain how time was tracked for each separate project or BC or activity.

27. Did you provide any input or participate in the determination of the qualified activity percentage during the period beginning [date 1] and ending [date 2]. Who had input or participated in this determination?

28. How was this time allocation percentage determined? For example, if an employee had 70% of their time allocated to research activities, how did you determine this? (i.e. timesheets, time surveys, estimates, project reports, etc.) Please provide copies of any documents used to determine this time allocation.

29. If the time allocation was estimated did you perform the estimate for other employees? If so, how many employees did you perform estimates for and list the employee's names.

30. Did you provide the consultant with your research time percentage or did you identify what activities you perform and someone else determined the percentage? If you identified activities, why type of activities did you list?

31. Who determined the final percentage amounts?

32. Were employee interviews conducted? Who conducted the interviews?

33. Do you have notes or any form of documentation regarding the employee interviews?

34. How was it determined that the employee was performing qualified research? What activities were deemed to be qualified research? How were those activities identified?

35. When completing the time allocation how was the performance of non-qualified activities (e.g., sales, standard QA/QC, administrative time, post-production time, etc.) considered and accounted for when estimating time for the qualified research activities.

Funded

36. What is your understanding of funded research for the purposes of research tax credit?

Interview Questionnaire – IRC §41 Research Credit

37. Is any of your research funded by a government or other entity?

38. Did you complete a contract review to determine if projects were funded? If so, who completed the review? Is your review documented?

39. Did the consultant ask for or review the contracts for funding? Did you receive documentation regarding the consultant's review or know if it was documented?

40. Do you retain the rights to your research activities?

41. For research activity in which you retained rights please identify the specific business component and identify if it was a new product, process, or both. Describe how you retained rights to the research activities.

Business Components with rights retained	Product, process, both	How Rights were Retained

42. Are the research contracts contingent on the success of the research? How?

Tour

43. Where is the research conducted?

44. Can you show me any current research being conducted?

45. Can you explain the research process?

46. Can you introduce me to the employees that do the research?

47. Are things done the same now as they were done in XXXX (exam year)?

Questions to ask if a Consultant was used

48. How did you first become aware of consultant? Did the consultant or your company initiate the contact? Approximately when did the first contact occur? Who was the company's liaison with the consultant? Who communicated with the consultant?

Interview Questionnaire – IRC §41 Research Credit

49. Did you believe you were entitled to an R&E credit before you were contacted by the consultant?

50. When was your first meeting with the consultant? Was it in person or by phone? Who was the consultant employee you met?

51. What was discussed at the first meeting with the consultant and your company?

52. What did the consultant say concerning your eligibility to claim the research and development credit during your initial conversations? Did the consultant imply that your company was entitled to claim the research credit based on your initial conversation?

53. What was discussed as the fee in relation to the consultant's R&E study?

54. When the consultant performed the study/review, who at the consultant conducted the study?

55. How long did the study last?

56. How did the consultant perform their study? Was it in person, phone, email, or a combination?

57. What books and records were requested by the consultant?

58. Were employees of XX interviewed? How many employees were interviewed?

59. What was the name of the consultant employee who conducted the interviews?

60. Where were the interviews conducted? Were they in person or over the phone? On approximately what date(s) did the interviews occur? Did someone take notes or document the interview?

61. What are the names and positions of the employees interviewed?

62. What were the results of the consultant's studies and how were the credits applied?

Interview Questionnaire – IRC §41 Research Credit

63. Did the consultants go over the results with you, and explain their methodology? Were the results provided in person, email, phone etc.?

64. When were the consultant's credit amount findings communicated? How were they communicated? ex. receipt of a proforma Form 6765 prior to completion of the formal credit study, receipt of the completed credit study, or informed of the credit amount via email. What items did you receive that contained the findings and when were those items received?

65. Did the consultant provide any audit protection along with their study?

66. Did your return preparer provide any advice regarding the research credit?

67. Other than the consultant, did you seek any other professional advice regarding the research credit?

LBI Software and Industry Specific Interviews

LBI has created specific interview questions for software and specific industries those are available for your review and incorporation into your interview as appropriate.

They are as follows:

[Software](#)

[Architecture, Engineering, and Construction](#)

[Food and Beverage Industry](#)

[Garment and Retail Industry](#)

[Original Equipment Manufacturer \(OEM\), Auto, and Machine Shop Industry](#)

[Oil and Gas Intangible Drilling Costs \(IDC\)](#)

[Oil and Gas Engineering, Construction, and Large Industrial Complex \(refinery or chemical plant\)](#)



R&E Agenda 6/24/21

- Welcome
- Office of Promoter Investigations
 - Michael McCarter
 - Michelle Bognich
 - Chris Roginsky
 - Matt Ennen
- Training Schedule
- History of R&E Groups
- Admin Procedures- Mandatory Review
- Meet & Greet
- Introduction to R&E



Lesson 1

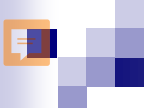
- Introduction to Research Tax Credits



Objectives

At the end of this lesson, you will be able to:

- Explain the general concepts behind the research tax credit
- Determine who may be able to claim the research tax credit
- Describe the basic components of the research tax credit
- Summarize the history of the credit



Introduction

What is the credit?

- Enacted in 1981
- Made permanent in December, 2015
- Credit is available to all businesses who design, develop or improve:
 - Products
 - Processes
 - Techniques
 - Formulas or software

Introduction, Continued

- The credit is computed on the increase in research expenditures, rather than static projects or programs.



Common Acronyms

- ASC: Alternative Simplified Credit
- FBP: Fixed Base Percentage
- QRA: Qualified Research Activity
- QRE: Qualified Research Expenses
- POE: Process of Experimentation
- R&E: Research and Experimentation
- R&D: Research and Development

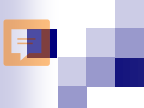
What do we call it?????

- R&D – Research and Development, or
- R&E – Research and Experimentation?
- Either term is acceptable, but technically it involves both research and experimentation to arrive at the end result (business component).



Who benefits from the research tax credit?

- Auto Industry
 - Software developers
 - Food & beverage Industry
 - Aerospace
 - Engineering companies
 - Pharmaceutical
 - Fashion design
 - Agricultural
-



Research Tax Credit

The research tax credit has three main components:

- Qualified Research Activities (QRAs)
- Qualified Research Expenditures (QREs)
- Computation Methods



How the credit is reported

- Form 6765, *Credit for Increasing Research Activities*
- Summarized on Form 3800, *General Business Credits*.

2019 Form 6765

Form **6765**
(Rev. December 2019)

Department of the Treasury
Internal Revenue Service
Name(s) shown on return

Credit for Increasing Research Activities

► Attach to your tax return.
► Go to www.irs.gov/Form6765 for instructions and the latest information.

OMB No. 1545-0619

Attachment
Sequence No. **81**

Identifying number

Section A—Regular Credit. Skip this section and go to Section B if you are electing or previously elected (and are not revoking) the alternative simplified credit.

1	Certain amounts paid or incurred to energy consortia (see instructions)		1
2	Basic research payments to qualified organizations (see instructions)	2	
3	Qualified organization base period amount	3	
4	Subtract line 3 from line 2. If zero or less, enter -0-		4
5	Wages for qualified services (do not include wages used in figuring the work opportunity credit)	5	
6	Cost of supplies	6	
7	Rental or lease costs of computers (see instructions)	7	
8	Enter the applicable percentage of contract research expenses. See instructions	8	
9	Total qualified research expenses. Add lines 5 through 8	9	
10	Enter fixed-base percentage, but not more than 16% (0.16) (see instructions)	10	%
11	Enter average annual gross receipts. See instructions	11	
12	Multiply line 11 by the percentage on line 10	12	
13	Subtract line 12 from line 9. If zero or less, enter -0-	13	
14	Multiply line 9 by 50% (0.50)	14	
15	Enter the smaller of line 13 or line 14		15
16	Add lines 1, 4, and 15		16
17	Are you electing the reduced credit under section 280C? ► Yes ☐ No ☐ If "Yes," multiply line 16 by 15.8% (0.158). If "No," multiply line 16 by 20% (0.20) and see the instructions for the statement that must be attached. Members of controlled groups or businesses under common control, see instructions for the statement that must be attached		17

Section B—Alternative Simplified Credit. Skip this section if you are completing Section A.

18	Certain amounts paid or incurred to energy consortia (see the line 1 instructions)		18
19	Basic research payments to qualified organizations (see the line 2 instructions)	19	
20	Qualified organization base period amount (see the line 3 instructions)	20	
21	Subtract line 20 from line 19. If zero or less, enter -0-		21
22	Add lines 18 and 21		22
23	Multiply line 22 by 20% (0.20)		23
24	Wages for qualified services (do not include wages used in figuring the work opportunity credit)	24	
25	Cost of supplies	25	
26	Rental or lease costs of computers (see the line 7 instructions)	26	
27	Enter the applicable percentage of contract research expenses. See the line 8 instructions	27	
28	Total qualified research expenses. Add lines 24 through 27	28	
29	Enter your total qualified research expenses for the prior 3 tax years. If you had no qualified research expenses in any one of those years, skip lines 30 and 31	29	
30	Divide line 29 by 6.0	30	
31	Subtract line 30 from line 28. If zero or less, enter -0-	31	
32	Multiply line 31 by 14% (0.14). If you skipped lines 30 and 31, multiply line 28 by 6% (0.06)		32
33	Add lines 23 and 32		33
34	Are you electing the reduced credit under section 280C? ► Yes ☐ No ☐ If "Yes," multiply line 33 by 79% (0.79). If "No," enter the amount from line 33 and see the line 17 instructions for the statement that must be attached. Members of controlled groups or businesses under common control, see instructions for the statement that must be attached		34

Section C—Current Year Credit

35	Enter the portion of the credit from Form 8932, line 2, that is attributable to wages that were also used to figure the credit on line 17 or line 34 (whichever applies)	35	
36	Subtract line 35 from line 17 or line 34 (whichever applies). If zero or less, enter -0-	36	
37	Credit for increasing research activities from partnerships, S corporations, estates, and trusts	37	
38	Add lines 36 and 37 •Estates and trusts, go to line 39. •Partnerships and S corporations not electing the payroll tax credit, stop here and report this amount on Schedule K. •Partnerships and S corporations electing the payroll tax credit, complete Section D and report on Schedule K the amount on this line reduced by the amount on line 44. •Eligible small businesses, stop here and report the credit on Form 3800, Part III, line 4i. See instructions for the definition of eligible small business. • Filers other than eligible small businesses, stop here and report the credit on Form 3800, Part III, line 1c. Note: Qualified small business filers, other than partnerships and S corporations, electing the payroll tax credit must complete Form 3800 before completing Section D.	38	
39	Amount allocated to beneficiaries of the estate or trust (see instructions)	39	
40	Estates and trusts, subtract line 39 from line 38. For eligible small businesses, report the credit on Form 3800, Part III, line 4i. See instructions. For filers other than eligible small businesses, report the credit on Form 3800, Part III, line 1c	40	

Section D—Qualified Small Business Payroll Tax Election and Payroll Tax Credit. Skip this section if the payroll tax election does not apply. See instructions.

Form **6765** (Rev. 12-2019)

41	Check this box if you are a qualified small business electing the payroll tax credit. See instructions		
42	Enter the portion of line 36 elected as a payroll tax credit (do not enter more than \$250,000). See instructions	42	
43	General business credit carryforward from the current year (see instructions). Partnerships and S corporations, skip this line and go to line 44	43	
44	Partnerships and S corporations, enter the smaller of line 36 or line 42. All others, enter the smallest of line 36, line 42, or line 43. Enter here and on the applicable line of Form 8974, Part 1, column (e). Members of controlled groups or businesses under common control, see instructions for the statement that must be attached	44	



Challenges in examining R&E



Challenges in examining R&E

■ IRS Examiner skill sets

- We have accounting and examining skills, but may not have experience with engineering, manufacturing or software.
- Due to the complexity of some cases, it will take longer to work.

■ The terminology of R&E

- Technical vs. tax language
- Some credit studies use “technical jargon” to confuse the reader.

Challenges in examining R&E

- Lack of resources

- ☐ Engineers being assigned to the case
- ☐ Computer Audit Specialists (CAS)
- ☐ Revenue Agents

- R&E cases = time intensive

- ☐ Not your average examination case
- ☐ Specialists add time to your case
- ☐ Issues take more time to develop
- ☐ More documentation to examine



Challenges in examining R&E

■ Time Issues

- Most cases go un-agreed – which requires additional work in drafting a report.
- Currently, all R&E cases are subject to a mandatory review prior to closing.
- Overwhelming documentation to examine or review.
- Pressure to close the case



Brief History of R&E Legislation



Research Credit Historical Milestones

- Legislation since enactment of the credit
- Permanent legislation



Economic Recovery Tax Act of 1981

- **Enacted in 1981** - The research tax credit was enacted in the Economic Recovery Tax Act of 1981 as Section 44F.
- Section 44F allowed for a **25%** credit on excess expenditures over a base period. The credit could be earned on qualified expenditures for:
 - in house-wages and supplies
 - 65% of contract research expenses
- Section 44F became effective for amounts paid or incurred after June 30, 1981, and before January 1, 1986.

Economic Recovery Tax Act of 1981, Continued

- The definition of qualified research was:
"Qualified research has the same meaning as the term research or experimental has under section 174", except for the following activities that were excluded:
 - research in foreign countries
 - social sciences and humanities, or
 - funded by another



Deficit Reduction Act of 1984

- Section 44F was renamed Section 30.

Tax Reform Act of 1986

- The most significant amendment to the credit which resulted in:
 - Re-designated Section 30 as Section 41;
 - The first comprehensive definition of qualified research under Section 41;
 - Reduced credit rate to 20%;
 - The term “qualified research” narrowed with the exclusion of certain activities (including the first statutory exclusion of expenses incurred to develop internal use software).

Tax Reform Act of 1986, Continued

- Congress enacted the first comprehensive definition of "qualified research" (**the 4-Part Test**) to be applied to tax years beginning after December 31, 1985.
- Goal - to narrow the scope of what would be regarded as "qualified research."
 - Congress believed taxpayers had applied the 1981 Act definition too broadly with some taxpayers claiming the credit for virtually any expense relating to product development.

Tax Reform Act of 1986, Continued

■ The 4-Part Test

- **Section 174 Test** - Congress retained, as the threshold requirement, that all of the expenses incurred in the activity must qualify for Section 174 treatment. Congress added three more requirements to the definition of qualified research under Section 41.
- **Technological Information Test** - The research be undertaken for the purpose of discovering information that is technological in nature;
- **Business Component Test** - The taxpayer intends to apply the information it discovers to develop a new or improved business component.
- **Process of Experimentation Test** - Substantially all of the research activities are elements of a process of Experimentation; and

Tax Reform Act of 1986, Continued

- The term “**qualified research**” does not include (IRC §41(d)(4)):
 - (A) Research after commercial production;
 - (B) Adaptation of existing business components;
 - (C) Duplication of existing business component;
 - (D) Surveys, studies, etc.;
 - (E) Computer software;
 - (F) Foreign research;
 - (G) Social sciences, etc.;
 - (H) Funded research;

The Revenue Reconciliation Act of 1989

- Before 1989 the research credit was calculated solely on the basis of research expenditures. The definition of “**base period research expenses**” was defined as the average of qualified research activities for the three years preceding the credit year.
- After 1989, Congress substantially altered the methodology for calculating the research credit, effectively tying the **credit computation to not only to research expenditures, but also “gross receipts”**.
- A taxpayer’s “base amount” is the product of its (1) “fixed-base percentage” and (2) its Average Annual Gross Receipts (AAGR) for the four taxable years preceding the current taxable year.
- Section 41(c)(3)(A) generally defines the “fixed-base percentage” as the percentage of aggregate QREs of the taxpayer for the taxable years beginning after December 31, 1983, and before January 1, 1989, to aggregate gross receipts of the taxpayer for the same taxable years.

The Small Business Job Protection Act of 1996

- In 1996 Congress enacted new section 41(c)(4), effective for taxable years beginning after June 30, 1996, allowing a taxpayer to elect a separate Alternative Incremental Credit (AIRC) method of computing the research credit under section 41(a)(1) and established a three-tiered formula for computing the credit.



Tax Relief and Health Care Act of 2006

- Added the alternative simplified credit (ASC) for computing the research credit.

The American Taxpayer Relief Act of 2012

- QREs paid or incurred by the **disposing taxpayer** in a taxable year that includes or ends with a change in ownership are treated as current year QREs of the disposing taxpayer and such expenses are not treated as current year QREs of the *acquiring* taxpayer.
 - This ended taxpayers claiming the QREs of targets that were incurred prior to the effective date of the targets' acquisition.
- Changed the basis on which a **controlled group credit** is allocated to group members from being based on a member's stand-alone entity credit to being based on a member's share of the controlled groups total QREs.



Fundamental Statutory Requirements

- Qualification Requirement
 - Section 41(d) – Actual Performance of Qualified Research Activities (QRAs)
- Quantification Requirement
 - Section 41(b) – Qualified Research Expenses (QREs)
- Computational Requirement
 - Section 41(c)
 - Computation of incremental increase and credit amount
- Utilization of Credit Requirement
 - Section 38 and 39 Limitations
 - Other Statutory Limitation on Use of Credit



Credit Extended & Made Permanent

- The research credit has expired 9 times and has been extended 16 times through December 31, 2014.
- The PATH Act (Protecting Americans From Tax Hikes) made the research permanent as of December 18, 2015.

2015 PATH ACT – RESEARCH CREDIT

- The research credit was made permanent.
- Additionally, for tax years beginning after December 31, 2015, the research credit may be applied against:
 - **Alternative minimum tax (“AMT”)** in case of “eligible small business.”
 - **Payroll taxes** for certain “qualified small businesses” and “start-up companies.”

2015 PATH ACT – RESEARCH CREDIT

Payroll Tax Credit

- ❖ To qualify for the credit, a taxpayer must meet definition of qualified small business:
 - **For corporations or partnerships:**
 - Gross receipts (determined under IRC § 448(c)(3)) of less than \$5,000,000.
 - No gross receipts for any taxable year preceding the 5 taxable-year-period ending with such taxable year.
 - **For individuals:**
 - Same rules, but gross receipts are determined by only taking into account the aggregate gross receipts received by such person in carrying on all trades or business of such person.

2015 PATH ACT – RESEARCH CREDIT

Payroll Tax Credit – Cont.

- ❖ Credit against the 6.2% Old-Age, Survivors, and Disability Insurance (“OASDI”) tax.
- ❖ Taxpayers must make an election and specify the amount of the research credit.
- ❖ Election must be made on timely filed original income tax (including extensions).
- ❖ Election may be revoked only with the consent of the Secretary.



2015 PATH ACT – RESEARCH CREDIT

Payroll Tax Credit – Cont.

- Maximum amount of credit allowed is \$250,000 per year.
- Credit allowed for no more than 5 years.
- IRC § 280C adjustment applies to election amount.
- Any unused portion of the payroll credit may be carried forward to the next quarter.

2019 Form 941

Part 1: Answer these questions for this quarter.

1	Number of employees who received wages, tips, or other compensation for the pay period including: <i>Mar. 12</i> (Quarter 1), <i>June 12</i> (Quarter 2), <i>Sept. 12</i> (Quarter 3), or <i>Dec. 12</i> (Quarter 4)	1	
2	Wages, tips, and other compensation	2	■
3	Federal income tax withheld from wages, tips, and other compensation	3	■
4 If no wages, tips, and other compensation are subject to social security or Medicare tax		Check and go to line 6.	
	Column 1		Column 2
5a	Taxable social security wages	■	× 0.124 = ■
5b	Taxable social security tips	■	× 0.124 = ■
5c	Taxable Medicare wages & tips	■	× 0.029 = ■
5d	Taxable wages & tips subject to Additional Medicare Tax withholding	■	× 0.009 = ■
5e	Add Column 2 from lines 5a, 5b, 5c, and 5d	5e	■
5f	Section 3121(q) Notice and Demand—Tax due on unreported tips (see instructions)	5f	■
6	Total taxes before adjustments. Add lines 3, 5e, and 5f	6	■
7	Current quarter's adjustment for fractions of cents	7	■
8	Current quarter's adjustment for sick pay	8	■
9	Current quarter's adjustments for tips and group-term life insurance	9	■
10	Total taxes after adjustments. Combine lines 6 through 9	10	■
11	Qualified small business payroll tax credit for increasing research activities. Attach Form 8974	11	■
12	Total taxes after adjustments and credits. Subtract line 11 from line 10	12	■



Review of Objectives

You should now be able to:

- Explain the general concepts behind the research tax credit
- Determine who may be able to claim the research tax credit
- Describe the basic components of the research tax credit
- Summarize the history of the credit



IRC §41 Credit for Increasing Research Activities

The Knowledge Management Virtual Library can be found at

<https://portal.ds.irsnet.gov/sites/km/pages/virtuallibraryhome.aspx>



IRC §41 Credit for Increasing Research Activities

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Civil & Criminal Fraud
Collection
Examination
External Stakeholders & Communications
Oversight, Legislative & Legal
Penalties and Interest
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Systems & Information Technology
Taxpayer Rights, Education, Outreach & Advocacy
Workforce Acquisition, Training & Career Development

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This floor of the Virtual Library covers topics related to tax examinations and issues. Knowledge Bases on this floor fall into the following categories: Technical Tax Issues and Tax Examination & Administration.

Knowledge Base:

- Active
- Available to develop
- Under development

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Cooperatives, RICs, REITs and REMICs	Partnerships	Return Integrity & Compliance Services (RICs)	S Corporations	Tax Exempt Bonds	Trusts		
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IRC §41 Credit for Increasing Research Activities



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Credit for Increasing Research Activities - IRC 41

IRC § 41 allows taxpayer a credit for increasing their research activities. To qualify for the credit, the taxpayer's research activities must meet the 4-part test, i.e. the IRC § 174 test, the technological in nature test, the process of experimentation test, and the business component test. In addition, only qualified eligible expenses are allowed in computing the credit. Qualified research expenses include both the cost of qualified research that a taxpayer conducts in-house and the cost of contract research a taxpayer pays to another party for qualified research. Taxpayer must also take into consider their base amount, whether they are a start-up company, have acquired or disposed of any business segments or are electing any special methods of calculating their credit.

The content shown below may be a partial listing of the information in this book, click "View All" to see all the chapters.

Title	Chapter
Credit for Increasing Research Activities - Section 41 Overview	1
IRC Section 41 allows taxpayers a credit against tax for increasing research activities..... Read More	
Qualified Research Activities (QRAs) (IRC § 41(d))	2
This chapter discusses the four tests under IRC § 41(d)..... Read More	
Specifically Excluded Activities, including software	3
There are certain research activities that are specifically excluded from qualified research under section 41(d)(4). Read More	
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Section 41(b)(1) defines QREs as the sum of (1) "in-house research expenses" and (2) "contract research expenses"..... Read More	
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Related IRM Resources

Related Forms & Documents

ATG - Research Tax Credit IRC 41

Other Related Resources

[Credits -Submit an Inquiry](#)
[SBSE Guidance](#)



IRC §41 Credit for Increasing Research Activities

Credit for Increasing Research Activities- IRC 41	Book	Landing Page	All Items	Base Amount (IRC § 41(c))	...	Find an item	
Credit for Increasing Research Activities	✓	Title		Published Date	Article	Short Description	Chapter Section
Qualified Research Activities (QRAs)		Credit for Increasing Research Activities - Section 41 Overview	...	10/18/2019	IRC Section 41 allows taxpayers a credit against tax for increasing research activities		1
Specifically Excluded Activities		Qualified Research Activities (QRAs) (IRC § 41(d))	...	10/10/2019	This chapter discusses the four tests under IRC § 41(d).		2
Qualifying Research Expenditures (QREs)		Technological In Nature (IRC § 41(d) (1)(B))	...	10/18/2019	The technological in nature test is one of the four tests that must be met for a cost to be considered a qualified research expenditure ("QRE").		2 2
Base Amount (IRC § 41(c))		Business Component (IRC § 41(d)(2)(B))	...	10/18/2019	The term "business component" means any product, process, computer software, technique, formula, or invention which is to be held for sale, lease, or license, or used by taxpayers in their trade or business.		2 3
Computational Methods & Elections		Process of Experimentation (POE) Test (Treas. Reg. § 1.41-4(a)(5))	...	10/18/2019	The Process of Experimentation (POE) test has three core elements.		2 4
Control Group Rules		Specifically Excluded Activities, including software	...	10/16/2019	There are certain research activities that are specifically excluded from qualified research under section 41 (d)(4).		3
Research Credit Administrative Procedures		MITRE Expert Program and Internal Use Software Development	...	4/15/2020	Cases claiming internal use software as part of their research credit may need to make a MITRE referral		3 1
Research and Experimental Expenses- IRC 174		Foreign Research	...	10/21/2019	This section explains that foreign research activities conducted outside of the U.S. do not qualify for the research credit. A controlled group of corporations must consider additional		3 2
Other Research Credit and Expenditures							
Energy Credits							
Employment Credits							
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IRC §41 Credit for Increasing Research Activities



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Credit for Increasing Research Activities - IRC 41

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All Items

Research Credit Administrative Procedures ...

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✓	Title	Published Date	Article Short Description	Chapter	Section
	Research Credit Administrative Procedures	... 10/11/2019	This chapter provides an overview of Directives related to research activities.	8	
	SB/SE Administrative Procedures	... 4/7/2020	This page provides procedural guidance to SBSE examiners regarding the mandatory review and freeze codes, SBSE project and tracking codes assigned to research tax credit cases, contact information for SBSE subject matter experts and Counsel cadre, and training materials for R&E credit cases.	8	1
	SB/SE Resource Materials and Job Aids	... 4/7/2020	This page provides research tax credit audit aids, tax law, and resource materials for SBSE examiners to use while working cases.	8	2



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SB/SE Administrative Procedures

SB/SE administrative and procedural guidance contained on this page includes the following:

1. Mandatory Review and Freeze Code
2. Project and Tracking Codes
3. SB/SE Contacts for R&E Credit
4. Training Resources

1. Mandatory Review and Freeze Code

Effective June 9, 2016, all SB/SE research tax credit cases will contain AIMS Freeze Code 17 and will be subject to a mandatory review. Per the [June 6, 2016 Director's memorandum](#) and [Special Handling Alert](#), the mandatory review is as follows:

- It applies to all types of closures including survey, no change, agreed and unagreed.
- The review will be completed **prior** to issuing the examination report or surveying the return.
- Once the issue is discussed, including the development of the issue, the review conducted, and final approval has been received from the senior program analyst, the examiner can issue the report. This information should be recorded in the activity record.
- After the taxpayer returns the signed examination report or rebuttal, re-contact the Senior Program Analyst to request the freeze code be removed.
- Field examiners will notate on Form 3198, Special Features Section, that approval for closure was received from the Senior Program Analyst.

RELATED IRM RESOURCES

RELATED FORMS AND DOCUMENTS

[SBSE Examination Director Memorandum - Research and Experimentation \(R&E\) Tax Credit](#)
[SBSE Guidance and Required Inventory Review](#)
[Special Handling Alert - Review & Freeze Code Removal Instructions, Attachment 2 of Director's Memo](#)

OTHER RELATED RESOURCES

[SB/SE Resource Materials and Job Aids](#)



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SB/SE Resource Materials and Job Aids

Information and resource materials related of research tax credit examinations including: Job aids; Specialist Referrals; Project & Tracking Codes; Appeals; and Case Law Summaries.

Audit Aids:

Research Tax Credit Initial IDR	This IDR provides a sample of initial item which examiner may want to ask for concerning research tax credit (including general items, study, qualified research activities, funded research, stat sampling and base amount computations) to capture and identify qualified research expenses. Agent should review the items and utilize those relevant to their taxpayer.
Research Tax Credit Follow-Up IDR	This IDR provides a listing of follow up items which examiner may want to request concerning research tax credit (including research projects, research wages, research supplies, research contract expenses) to capture and identify qualified research expenses. Agent should review the items and utilize those relevant to their taxpayer.
Statistical Sampling IDR	Information document request for research tax credit examinations to be used when the taxpayer has used a statistical sampling approach to determine the credit. Agent should review the items and utilize those relevant to their taxpayer.
Credit for Increasing Research Activities Leadsheet	Revised July 2017, it contains exam steps for the agent to follow. The preferred report format is via an 886A but a leadsheet is acceptable.

RELATED IRM RESOURCES

RELATED FORMS AND DOCUMENTS

OTHER RELATED RESOURCES

Training Course 62004-102

Catalog No. 68949S

IRC § 41

Credit for Increasing Research Activities

Presenter:
Carl Doerfler,
Senior General Engineer
Chicago, IL

Conference Call for Audio Portion

[REDACTED] or [REDACTED]

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to SKYPE meeting check the box NOT to use
Skype audio, or Jabber will be muffled**



Lesson 2

Qualified Research Activities (QRA)



Objectives

At the end of this lesson, you will be able to:

- Identify the three concepts for determining research credit (QRAs, QREs, and Computation).
- Apply the four basic tests governing what are qualifying research activities
- Explain the “business component” concept to which the four tests are applied
- Explain the shrinking-back rule



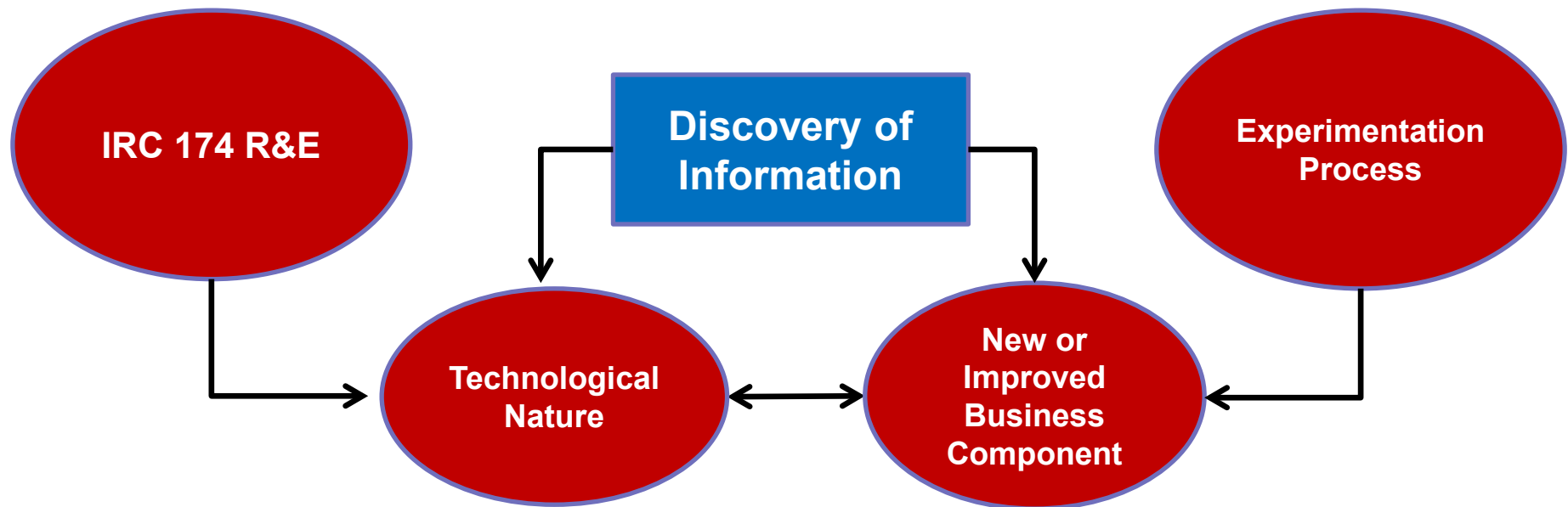
Qualified Research Activities

IRC § 41(d)

- Four-part test to determine if there is qualified research
- Tests apply separately to each business component
- The research must be conducted for a qualifying purpose
- The research cannot be conducted for excluded activities

Qualified Research Activities

Four-Part Test – IRC § 41(d)(1)



Four basic tests – IRC § 41(d)(2):

- Applied at the “business component” level
- Applied “separately” to each business component



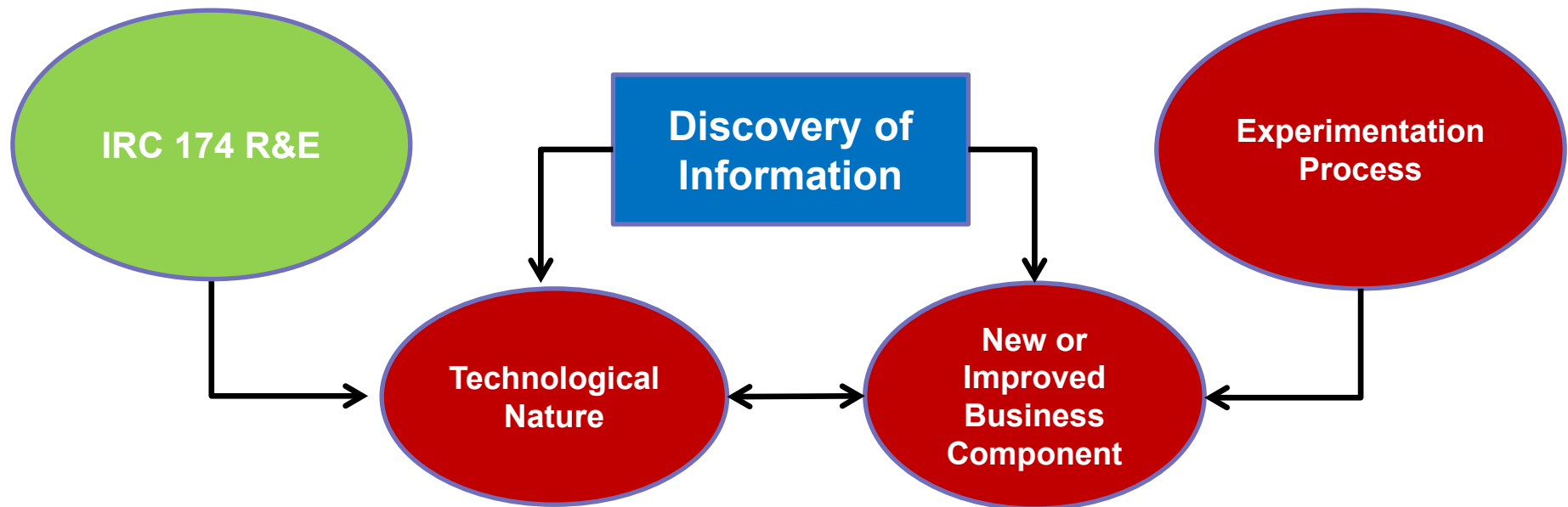
Business Components

IRC § 41(d)(2)(B)

- Any product, process, computer software, technique, formula or invention
- Held for sale, lease, license or use by taxpayer in trade/business.

Qualified Research Activities

Four-Part Test – IRC § 41(d)(1)



Four basic tests – IRC § 41(d)(2):

- Applied at the “business component” level
- Applied “separately” to each business component

Section 174 Test

IRC 41(d)(1)(A)

- Section 174 Test
 - Qualified research means research with respect to expenditures that may be treated as expenses under section 174.
- Under section 174, expenses must be:
 - Research and experimental
 - Incurred in connection with the taxpayer's trade or business
 - Are not chargeable to capital account
 - Reasonable
- Research and experimental costs must be “in the experimental or laboratory sense.”
 - Activities intended to discover information that would eliminate uncertainty concerning the development or improvement of a product.



Section 174 Test

Treas. Reg. 1.174-2(a)(1)

- Uncertainty exists if the information available to the taxpayer does not establish the capability or method for developing or improving the product or appropriate design of the product.
- Depends on the nature of the activity, not the nature of the product or improvement.
- Does not include production costs incurred after elimination of uncertainty.



Uncertainty

- Examples:

- ☐ New drug not available to the public
- ☐ New product that does not exist
- ☐ New way of manufacturing
- ☐ Using technologies to eliminate uncertainty

Elimination of Uncertainty

- “***Activities*** intended to ***discover information*** that would eliminate ***uncertainty*** concerning the development or improvement of a ***product***.”
- At the beginning of a project, comparatively little is known about the product or work results, and there is uncertainty. As more research and experimentation is done, more information is learned about the project, and the uncertainty then tends to decrease.

Items Not Chargeable to Capital Account

- Section 174 specifically provides that research or experimental expenditures do not include:
 - Expenditures for land acquisition or improvement
 - Expenditures for acquisition or improvement of property subject to depreciation under IRC 167.
 - Does not apply to pilot models
 - Expenditures for exploration of ore, oil, gas, or other minerals
- Expenditure not allowed even if the property may be used in connection with research or experimentation



Reasonable Expenses

IRC 174(e)

- Section 174 applies “to a research or experimental expenditure only to the extent that the amount thereof is reasonable under the circumstances”
- Dividends, gifts, loans, royalties, or similar payment are not reasonable expenses

Question 1

Is the name of the cost account (e.g., COGS) controlling and reflective of the qualified nature of qualified research activities and expenses?

☐	Yes
☐	No



Answer

No. The substance of the activity or the expenditure, and not the written description, determines whether the activity or expenditure meets the requirements of the Code.

Question 2

X is building a large chicken coop facility that houses thousands of chickens for the production of eggs. X plans to research how artificial light increases egg production after the facility is constructed. X claimed a research tax credit for the design and construction of the chicken coop facility. Is this a qualified activity under Section 174?

☐	Yes
☐	No

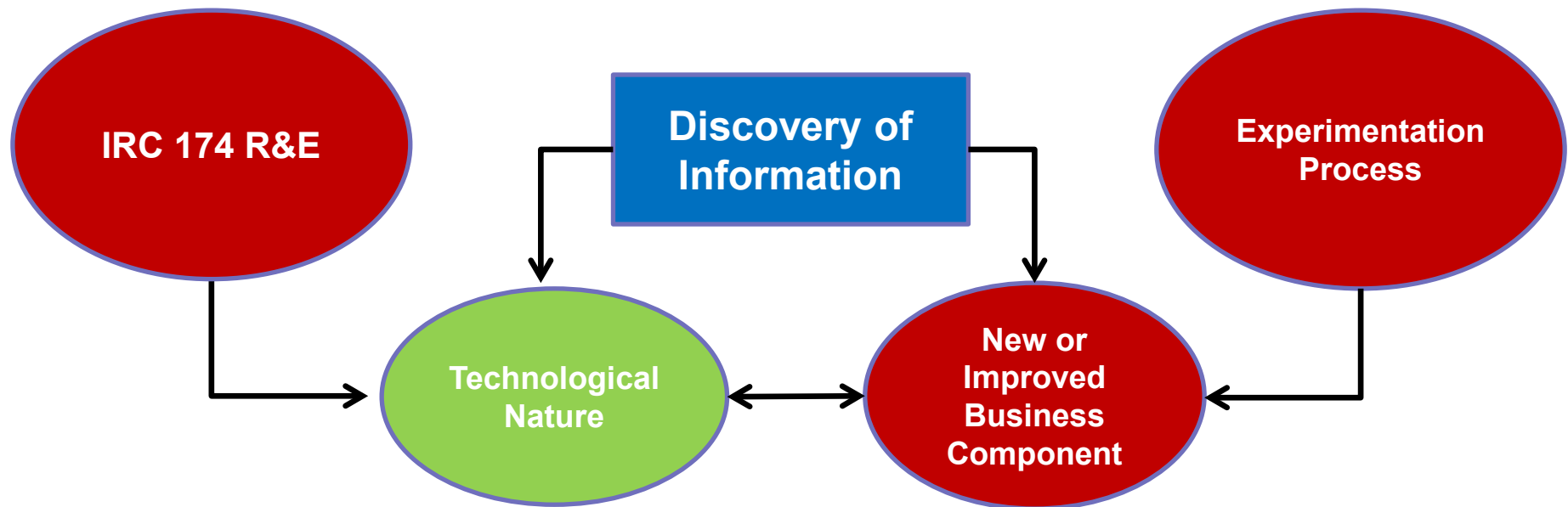


Answer

No. This is not a qualifying activity since X constructed a capital asset. Expenditures for the acquisition or improvement of property, which is subject to an allowance for depreciation, are not deductible under IRC § 174, irrespective of the fact that the property or improvements may be used by the taxpayer in connection with research or experimentation.

Qualified Research Activities

Four-Part Test – IRC § 41(d)(1)



Four basic tests – IRC § 41(d)(2):

- Applied at the “business component” level
- Applied “separately” to each business component

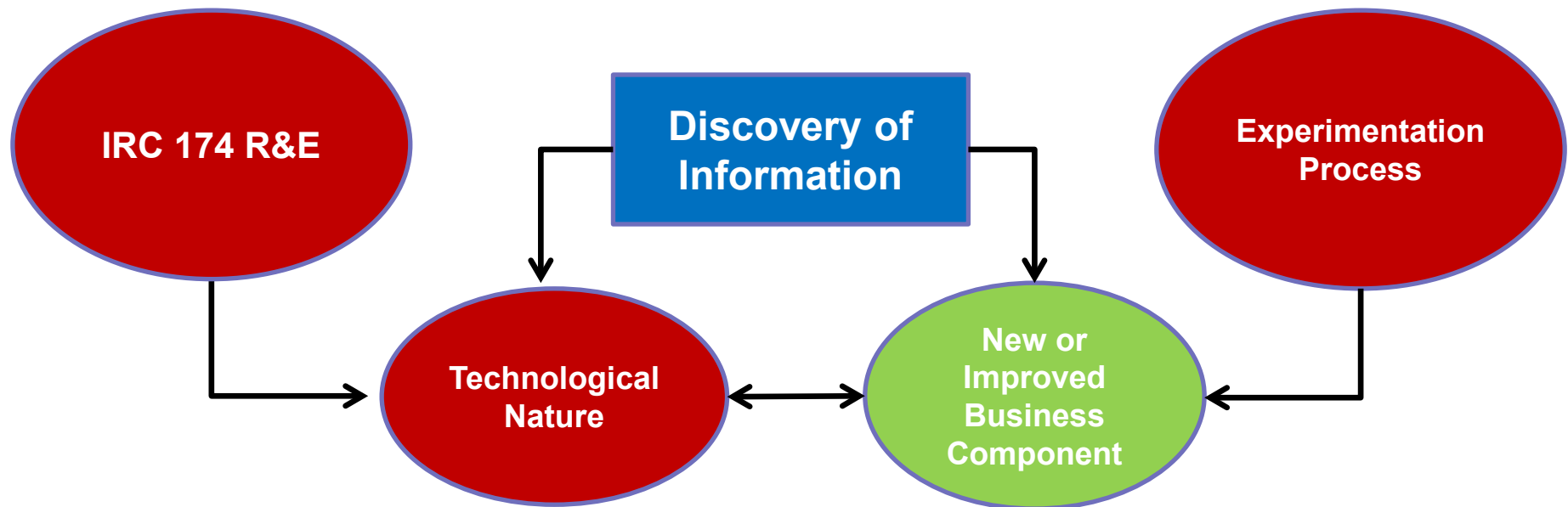
Discovering Technological Information Test

Section 41(d)(1)(B)(i)

- The activity must be undertaken for the purpose of discovering information "which is technological in nature."
 - Technological in Nature = fundamental reliance on the principles of:
 - Physical or biological sciences
 - Engineering
 - Computer Science
 - Does not need to exceed, expand, or refine the common knowledge of skilled professionals in which the taxpayer is performing the research.
-

Qualified Research Activities

Four-Part Test – IRC § 41(d)(1)



Four basic tests – IRC § 41(d)(2):

- Applied at the “business component” level
- Applied “separately” to each business component

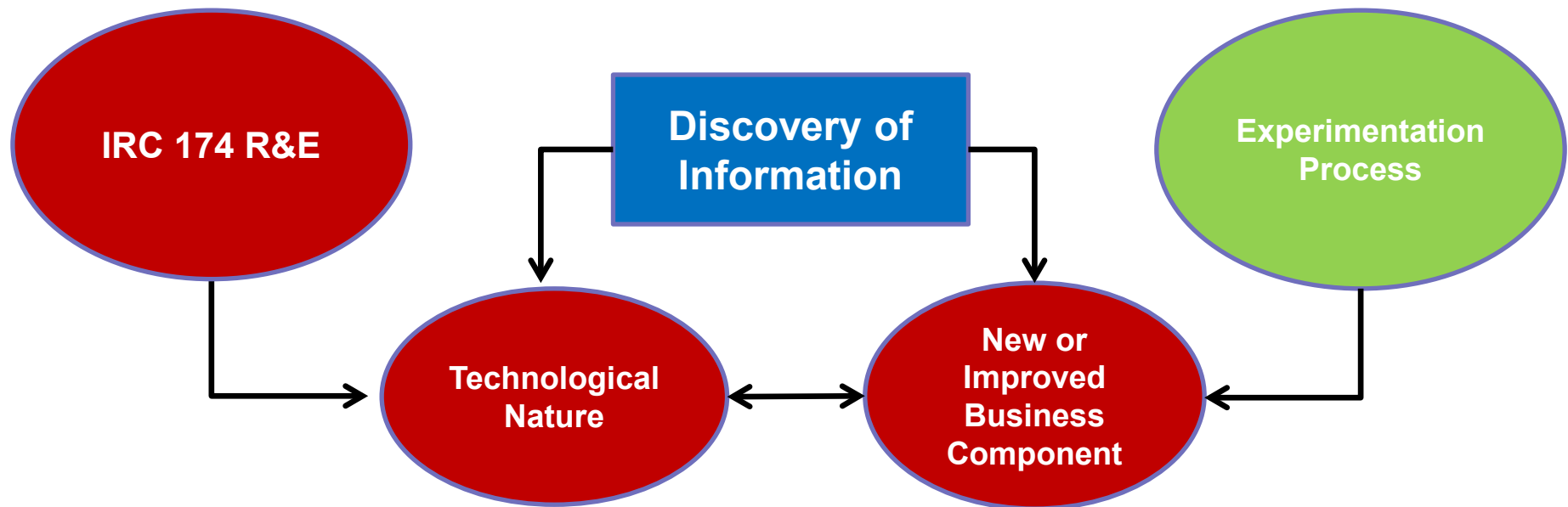
New or Improved Business Component

Section 41(d)(1)(B)(ii)

- The research must be undertaken for the purpose of discovering information with the intention to be useful in the development or improvement of a new or improved business component.
- Business component defined as any:
 - product,
 - process,
 - computer software,
 - technique,
 - formula, or
 - Inventionthat is held for sale, lease, license or use by taxpayer in trade/business.

Qualified Research Activities

Four-Part Test – IRC § 41(d)(1)



Four basic tests – IRC § 41(d)(2):

- Applied at the “business component” level
- Applied “separately” to each business component



The Process of Experimentation Test

Section 41(d)(1)(c)

- Substantially all of the activities must constitute elements of a process of experimentation that relates to a qualified purpose.

The Process of Experimentation

Treas. Reg. § 1.41-4(a)(5)

- The process of experimentation is a process designed to evaluate one or more alternatives where the capability, method or appropriate design to achieve results is uncertain at the beginning of the research activities. It must:
 - Fundamentally rely on principles of physical, biological sciences, engineering or computer sciences
 - Identify uncertainty concerning development/improvement of a business component
 - Identify one or more alternatives intended to eliminate uncertainty, and
 - Identify and conduct of a process of evaluating alternatives.
-

Qualified Purposes

IRC § 41(d)(3)

- For purposes of claiming the research credit, research must be conducted for a qualified purpose.
- Research is conducted for a qualified purpose if it relates to:
 - ☐ A new or improved function
 - ☐ Performance
 - ☐ Reliability
 - ☐ Quality (Treas. Reg. § 1.41-4(a)(5)(ii))
- Qualified research does not include style, taste, cosmetic or seasonal design factors (Treas. Reg. § 1.41-4(a)(5)(ii))



Substantially All Requirement

Treas. Reg. § 1.41-4(a)(6)

- **The Substantially all requirement is satisfied only if 80% or more of the research activities constitutes elements of a process of experimentation.**
- Measured on cost or other consistently applied reasonable basis.
- Applies separately to each business component.

Question 3

Are qualified activities limited to those activities that are part of a process of experimentation (POE) to resolve technical uncertainty regarding the development of a new or improved business component of the taxpayer?

☐ Yes

☐ No



Answer

Yes, a taxpayer must satisfy all aspects of the process of experimentation, including:

- Identify the business component
- Identify technical uncertainty by business component
- Identify process of experimentation activities to resolve uncertainty by business component



Shrinking-Back Rule

- The requirements of section 41(d) are to be applied first at the level of the discrete business component (i.e., the product, process, computer software, technique, formula, or invention).
- If the requirements are not met at that level, the tests are applied at the most significant subset of elements of the business component.



Review of Objectives

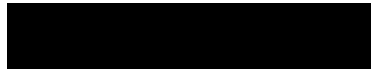
You should now be able to:

- Identify the three categories for determining the research credit (QRAs, QREs, and Computation).
- Apply the four basic tests governing what are qualifying research activities.
- Explain the “business component” concept to which the four tests are applied.
- Explain the shrinking-back rule.

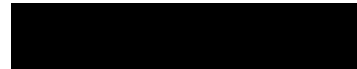
IRC § 41

Credit for Increasing Research Activities

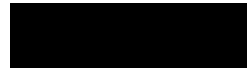
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MEETING CHECK THE BOX “NOT USE SKYPE FOR AUDIO”

Day 3

Qualified Research Expenses (QRE)

Qualified Expenses

Section 41(b)(2)(A) defines in-house research expenses as:

- Wages for qualifying services
- Qualifying supplies
- Contract research expenses are defined in IRC § 41(b)(3) as 65% of the amounts paid or incurred to any person (other than an employee) for qualified research.

Qualified Expenses

Section A—Regular Credit. Skip this section and go to Section B if you are electing or previously elected (a alternative simplified credit.

1	Certain amounts paid or incurred to energy consortia (see instructions)			
2	Basic research payments to qualified organizations (see instructions)	2		
3	Qualified organization base period amount	3		
4	Subtract line 3 from line 2. If zero or less, enter -0-			
5	Wages for qualified services (do not include wages used in figuring the work opportunity credit)	5		
6	Cost of supplies	6		
7	Rental or lease costs of computers (see instructions)	7		
8	Enter the applicable percentage of contract research expenses (see			

Wages for Qualifying Services

- Wages as defined in IRC §3401(a) – all taxable wages as reported on Form W-2.
- Does not include fringe benefits or non-taxed income.
- Flow-through entities – SE income is treated as wages if engaged in qualified research.

Examples of non-QRE wages

QREs on cases that were not qualified

- Wages plus payroll taxes used in QREs
- Wages plus car allowances
- Net wages amounts

Qualified Services - IRC § 41(b)(2)(B)

Under IRC § 41(b)(2)(B) wages that qualify for research credit are those for “Qualified Services”. These include:

- ❑ Engaging in qualified research,
- ❑ Direct supervision of qualified research and
- ❑ Direct support of qualified research.

Treasury Regulation § 1.41-2(c) provides further guidance

Qualified Services – Question 1

A company's secretary helps type up project descriptions that were used in the research to develop a new cell phone. The secretary was not involved directly in the development of the cell phone.

Was the secretary involved in direct support of the research undertaken to develop a new cell phone?

Qualified Services - Answer

Yes, even though the secretary was not directly involved in the development of the cell phone, the secretary provided direct support in the typing of the cell phone project description.

Substantially All Rule

If 80% or more of employee's (tax year) work is for qualified services then all (100%) of that employee's wages are QREs. See Reg. § 1.41-2(d)(2).

Applied on an employee-by-employee basis.

How QRE wages are computed

An engineer worked 1000 hours (out of 2000 hours/ per year) on a project to produce a new business component.

The engineer's W-2 wages were \$100,000

QRE wages are computed as:

$$\text{\$100,000} \times 1000 / 2000 = \text{\$50,000 QRE wages}$$

Engaging in Qualified Research

Engaging means actual conduct of qualified research, as in the case of a scientist conducting laboratory experiments. Involved in qualified research can be an engineer developing a design and specifications for a new product that does not exist in the market place.

Direct Supervision of Qualified Research

The term "direct supervision" means the immediate supervision (first-line management) of persons engaged in qualified research (for example, a research scientist who directly supervises laboratory experiments, but who may not actually perform experiments).

"Direct supervision" **does not** include supervision by a higher-level manager to whom first-line manager's report, even if that manager is a "qualified research scientist".

Example – non-qualified direct supervision

CEO of company that does not participate in the development of the QRA, but had the overall approval on whether the project could take place.

VP of Sales who receives information from client of what products they want produced.

Employee shipping/receiving department who ships developed product to lab for testing.

Direct Support of Qualified Research

The term "direct support" means services in the direct support of either persons engaging in the actual conduct of qualified research, or persons who are directly supervising persons engaging in the actual conduct of qualified research.

NOTE

If 80% or more of employee's (tax year) work is for qualified services then all (100%) of that employee's wages are QREs.

See Treas. Reg. section 1.41-2(d)(2).

Examples of qualified wages for research may include:

-
- Designing of a new of product
 - Prototype development and creation
 - Designing of a new specialized tool for a machine shop
 - Software development of new algorithms
 - Testing of a pilot model or new formulas
 - Generating lab reports and results
 - Designing new and efficient manufacturing equipment
 - First line manager supervising the research team in development of a product

Supplies

Research Supplies - IRC § 41(b)(2)(C)

Qualifying research supplies means any tangible property other than:

- Land or improvements to land and
- Property of a character subject to depreciation.
- General and Admin Costs not allowed

Supplies – directly related to performance of qualified services.

Research Supplies - Examples

TP claimed supplies can come from many sources

- Raw material
- Cost of Goods Sold
- Machinery, equipment and tooling in manufacturing
- Property of character subject to allowance for depreciation
- Small and/or perishable tooling with depreciable life < than 1 year
- Construction Work-in-process (CWIP)
- Pilot models
- Trial runs – prove out product and/or process
- Food, grain or animal products
- Whole or partial finished product (e.g., entire truck or chassis assembly)
- Extraordinary utility costs (e.g. gas, oil, electricity)
- Maintenance items

Research Supplies – Examples

- Supplies used to develop a proto-type.
- Chemicals used in the development of a new drug.
- Clay for the modeling of a new auto design

Research Supplies – Audit Tips

High supply costs – may be potential audit area.

Review for general and admin costs, overhead and indirect expenses.

Research Supplies – Audit Tips

Exclusions

Research after commercial production -- activities after component ready for use or functional and economic requirements already established.

- “Tooling up” for production or troubleshooting
- Trial runs, pre-production runs, pre-production planning
- Plant layout design, process or equipment modification for commercial production

Research Supplies – Audit Tips

Exclusions, cont'd

- Labor/materials for construction/installation (unless it qualifies as a “pilot model”)
- Construct/adapt of machinery/equipment (unless it qualifies as a “pilot model”)
- Duplication of existing business component, reverse engineering
- Adaptation of existing business component to specific customer requirements or needs
- Maintenance/repairs of machinery/equipment

Contract Research

Contract Research – Reg. § 1.41-2(e)

Qualified contractor expenses equate to 65% of amounts paid, that would have been “qualified services” had been performed by taxpayer employees.

Qualifying payments to contractors must be part of agreement entered into:

- prior to performance of research,
- that specifies research is for taxpayer,
- for which taxpayer bears financial risk.

Audit Issues

- Request and review contracts. Are all legal requirements met?
- R&E Counsel Cadre can assist with the review of contracts.
- Review work orders or statements of work.

65% Rule

-
- Consortium – QRE is increased to 75%
 - Consortium – Tax exempt organization conducting scientific research.
 - Eligible small businesses, Universities, Federal laboratories – QREs are 100%
 - IRC §41(b)(3)(C) and (D)



Question 2

Given that a 35% “haircut” is already imposed on the taxpayer’s payments to contractors who perform research, the contract research qualified research expenses do not need to be reduced further to remove second-level management and indirect support personnel.

☐
☐

True

False



Answer

False.

Research and experimental activities
are limited “qualified services”.

Question 3

Is the management of persons who conduct direct support of qualified research a qualified service?

- ☐ **Yes**
- ☐ **No**

Answer

No.

Qualified services are:

- Engaging in qualified research
- Directly supervising persons engaged in qualified research
- Directly supporting persons engaged in qualified research.

Question 4

ABC conducts in-house qualified research in carrying on ABC's trade or business. In addition, ABC contracts DEF Corporation, a provider of temporary secretarial services, for the services of a secretary for a week. The secretary spends the entire week typing reports describing laboratory results. ABC pays \$400 to DEF. How much of this can ABC include as QRE?

Answer

\$260 (65% of \$400)

Question 5

ABC conducts in-house qualified research in carrying on a trade or business. ABC pays F, an outside accountant \$1,000 to keep ABC's books and records pertaining to the research project. How much of this is QRE to ABC?

Answer

\$0

The activity carried on by the accountant is not qualified research. Therefore, regardless of whether an employee of ABC is paid for this or an outside company is paid for it, this does not constitute a research expense.

Audit Issues

- QRE wages are computed by estimates with no support on how the estimates were established
- No nexus between wages and projects
- Wages of upper level managers are used as QREs, even though they may not be directly associated with any research
- Wages of non-research employees are added in the QRE computation
- Fringe benefits and other non-taxable items are added to wages
- As an examiner request a detail of the expenses and how they tie to the QRAs or projects.
- Are the expenses reasonable?
- Often times consultants will use a "haircut" approach in claiming research supplies as if all the employees of the entire company is doing a percentage of research.

Accounting

- Record Keeping
- Project accounting
- Cost Center/Departmental accounting

Qualified Research Expenses (QRE)

Conclusion

- Wages
- Supplies
- Contract Research
- Substantially All
 - Direct Research
 - Direct Supervision
 - Direct Support

Qualified Research Expenses (QRE)

Questions?



IRC § 41

Credit for Increasing Research Activities

**Conference Call for Audio: XXX-XXX-XXXX XXX-XXX-XXXX
#XXX-XXXX**

***6 to Mute Microphone**

**If using Jabber w/ Skype, when you connect to Skype meeting
check the box “Don’t Join Audio” or your Jabber will be muffled**



Examination Techniques



Form 6765 Page 1

Section A—Regular Credit. Skip this section and go to Section B if you are electing or previously elected (and are not revoking) the alternative simplified credit.

1	Certain amounts paid or incurred to energy consortia (see instructions)		1	
2	Basic research payments to qualified organizations (see instructions)	2		
3	Qualified organization base period amount	3		
4	Subtract line 3 from line 2. If zero or less, enter -0-		4	
5	Wages for qualified services (do not include wages used in figuring the work opportunity credit)	5		
6	Cost of supplies	6		
7	Rental or lease costs of computers (see instructions)	7		
8	Enter the applicable percentage of contract research expenses. See instructions	8		
9	Total qualified research expenses. Add lines 5 through 8	9		
10	Enter fixed-base percentage, but not more than 16% (0.16) (see instructions)	10	%	
11	Enter average annual gross receipts. See instructions	11		
12	Multiply line 11 by the percentage on line 10	12		
13	Subtract line 12 from line 9. If zero or less, enter -0-	13		
14	Multiply line 9 by 50% (0.50)	14		
15	Enter the smaller of line 13 or line 14		15	
16	Add lines 1, 4, and 15		16	
17	Are you electing the reduced credit under section 280C? ☐ Yes ☐ No If "Yes," multiply line 16 by 15.8% (0.158). If "No," multiply line 16 by 20% (0.20) and see the instructions for the statement that must be attached. Members of controlled groups or businesses under common control, see instructions for the statement that must be attached		17	

Section B—Alternative Simplified Credit. Skip this section if you are completing Section A.

18	Certain amounts paid or incurred to energy consortia (see the line 1 instructions)		18	
19	Basic research payments to qualified organizations (see the line 2 instructions)	19		
20	Qualified organization base period amount (see the line 3 instructions)	20		
21	Subtract line 20 from line 19. If zero or less, enter -0-		21	
22	Add lines 18 and 21		22	
23	Multiply line 22 by 20% (0.20)		23	
24	Wages for qualified services (do not include wages used in figuring the work opportunity credit)	24		
25	Cost of supplies	25		
26	Rental or lease costs of computers (see the line 7 instructions)	26		
27	Enter the applicable percentage of contract research expenses. See the line 8 instructions	27		
28	Total qualified research expenses. Add lines 24 through 27	28		
29	Enter your total qualified research expenses for the prior 3 tax years. If you had no qualified research expenses in any one of those years, skip lines 30 and 31	29		
30	Divide line 29 by 6.0	30		
31	Subtract line 30 from line 28. If zero or less, enter -0-	31		
32	Multiply line 31 by 14% (0.14). If you skipped lines 30 and 31, multiply line 28 by 6% (0.06)		32	
33	Add lines 23 and 32		33	
34	Are you electing the reduced credit under section 280C? ☐ Yes ☐ No If "Yes," multiply line 33 by 79% (0.79). If "No," enter the amount from line 33 and see the line 17 instructions for the statement that must be attached. Members of controlled groups or businesses under common control, see instructions for the statement that must be attached		34	

For Paperwork Reduction Act Notice, see separate instructions.

Cat. No. 13700H

Form 6765 (Rev. 12-2019)



Form 6765 Page 2

Form 6765 (Rev. 12-2019)

Page **2**

Section C—Current Year Credit

35	Enter the portion of the credit from Form 8932, line 2, that is attributable to wages that were also used to figure the credit on line 17 or line 34 (whichever applies)	35	
36	Subtract line 35 from line 17 or line 34 (whichever applies). If zero or less, enter -0-	36	
37	Credit for increasing research activities from partnerships, S corporations, estates, and trusts	37	
38	Add lines 36 and 37 • Estates and trusts, go to line 39. • Partnerships and S corporations not electing the payroll tax credit, stop here and report this amount on Schedule K. • Partnerships and S corporations electing the payroll tax credit, complete Section D and report on Schedule K the amount on this line reduced by the amount on line 44. • Eligible small businesses, stop here and report the credit on Form 3800, Part III, line 4i. See instructions for the definition of eligible small business. • Filers other than eligible small businesses, stop here and report the credit on Form 3800, Part III, line 1c. Note: Qualified small business filers, other than partnerships and S corporations, electing the payroll tax credit must complete Form 3800 before completing Section D.	38	
39	Amount allocated to beneficiaries of the estate or trust (see instructions)	39	
40	Estates and trusts, subtract line 39 from line 38. For eligible small businesses, report the credit on Form 3800, Part III, line 4i. See instructions. For filers other than eligible small businesses, report the credit on Form 3800, Part III, line 1c	40	

Section D—Qualified Small Business Payroll Tax Election and Payroll Tax Credit. Skip this section if the payroll tax election does not apply. See instructions.

41	Check this box if you are a qualified small business electing the payroll tax credit. See instructions ☐		
42	Enter the portion of line 36 elected as a payroll tax credit (do not enter more than \$250,000). See instructions	42	
43	General business credit carryforward from the current year (see instructions). Partnerships and S corporations, skip this line and go to line 44	43	
44	Partnerships and S corporations, enter the smaller of line 36 or line 42. All others, enter the smallest of line 36, line 42, or line 43. Enter here and on the applicable line of Form 8974, Part 1, column (e). Members of controlled groups or businesses under common control, see instructions for the statement that must be attached	44	

Form **6765** (Rev. 12-2019)



Form 3800 Part III

Part III General Business Credits or Eligible Small Business Credits (see instructions)

Complete a separate Part III for each box checked below. See instructions.

- ☐ **A** General Business Credit From a Non-Passive Activity
☐ **B** General Business Credit From a Passive Activity
☐ **C** General Business Credit Carryforwards
☐ **D** General Business Credit Carrybacks
☐ **E** Reserved
☐ **F** Reserved
☐ **G** Eligible Small Business Credit Carryforwards
☐ **H** Reserved

I If you are filing more than one Part III with box A or B checked, complete and attach first an additional Part III combining amounts from all Parts III with box A or B checked. Check here if this is the consolidated Part III. ☐

(a) Description of credit	(b) If claiming the credit from a pass-through entity, enter the EIN	(c) Enter the appropriate amount
1a Investment (Form 3468, Part II only) (attach Form 3468)	1a	
b Reserved	1b	
c Increasing research activities (Form 6765)	1c	
d Low-income housing (Form 8586, Part I only)	1d	
e Disabled access (Form 8826) (see instructions for limitation)	1e	
f Renewable electricity, refined coal, and Indian coal production (Form 8835)	1f	
g Indian employment (Form 8845)	1g	
h Orphan drug (Form 8820)	1h	
i New markets (Form 8874)	1i	
j Small employer pension plan startup costs (Form 8881) (see instructions for limitation)	1j	
k Employer-provided child care facilities and services (Form 8882) (see instructions for limitation)	1k	
l Biodiesel and renewable diesel fuels (attach Form 8864)	1l	
m Low sulfur diesel fuel production (Form 8896)	1m	
n Distilled spirits (Form 8906)	1n	
o Nonconventional source fuel (carryforward only)	1o	
p Energy efficient home (Form 8908)	1p	
q Energy efficient appliance (carryforward only)	1q	
r Alternative motor vehicle (Form 8910)	1r	
s Alternative fuel vehicle refueling property (Form 8911)	1s	
t Enhanced oil recovery credit (Form 8830)	1t	
u Mine rescue team training (Form 8923)	1u	
v Agricultural chemicals security (carryforward only)	1v	
w Employer differential wage payments (Form 8932)	1w	
x Carbon oxide sequestration (Form 8933)	1x	
y Qualified plug-in electric drive motor vehicle (Form 8936)	1y	
z Qualified plug-in electric vehicle (carryforward only)	1z	
aa Employee retention (Form 5884-A)	1aa	
bb General credits from an electing large partnership (carryforward only)	1bb	
zz Other. Oil and gas production from marginal wells (Form 8904) and certain other credits (see instructions)	1zz	
2 Add lines 1a through 1zz and enter here and on the applicable line of Part I	2	
3 Enter the amount from Form 8844 here and on the applicable line of Part II	3	
4a Investment (Form 3468, Part III) (attach Form 3468)	4a	
b Work opportunity (Form 5884)	4b	
c Biofuel producer (Form 6478)	4c	
d Low-income housing (Form 8586, Part II)	4d	
e Renewable electricity, refined coal, and Indian coal production (Form 8835)	4e	
f Employer social security and Medicare taxes paid on certain employee tips (Form 8846)	4f	
g Qualified railroad track maintenance (Form 8900)	4g	
h Small employer health insurance premiums (Form 8941)	4h	
i Increasing research activities (Form 6765)	4i	
j Employer credit for paid family and medical leave (Form 8994)	4j	
z Other	4z	
5 Add lines 4a through 4z and enter here and on the applicable line of Part II	5	
6 Add lines 2, 3, and 5 and enter here and on the applicable line of Part II	6	

Form 3800 (2019)



AMT Offset

For tax years on or after January 1, 2016, eligible small businesses may claim the research tax credit against their alternative minimum tax (AMT) liability.

As a specified credit, the research tax credit may offset both income taxes and AMT liabilities.



Eligible Entities – AMT Offset

- An “**eligible small business**” means, with respect to any taxable year
 - (i) a corporation the stock of which is not publicly traded,
 - (ii) a partnership, or
 - (iii) a sole proprietorship,
- Annual gross receipts (less Returns and Allowances) for the 3-taxable-year period preceding such taxable year does not exceed \$50,000,000.
- Entities treated as a single employer should be aggregated
- Special rules apply to entities with short taxable years and those not in existence for the 3 prior years.



Pre-Taxpayer Contact

☐ **Issue Awareness/Education**

- ✓ Start with SB/SE Research Credit Administrative Procedures Knowledge Management Page [-SB/SE R&E KM Page](#)
- ✓ Review ATGs- Links are on the SB/SE R&E KM Page

☐ **Risk Assessment**

- ✓ Amount of research tax credit claimed -consider prior/subsequent years
- ✓ Business/industry
- ✓ Review company webpage and other internet sources
- ✓ Consult Technical Advisors
- ✓ Consider Engineer consult

☐ **Prepare initial IDR**

- ✓ On R&E Administrative Procedures KM Page within the SB/SE Resource Materials and Job Aids Page
[-SB/SE R&E Resource Materials and Job Aids KM Page](#)

Review IDR response

- ✓ Complete response?
If not, send 2nd request for information right away.

Review the research study in detail

- ✓ Identify potential issues - review the study and response in detail.
- ✓ Was statistical sampling used? If so, referral to CAS for review for compliance with Rev. Procedure 2011-42.
- ✓ Consult with Technical Advisor, Engineer and/or Counsel



The Research Tax Credit Study

Key **component** of your examination

- ✓ Should secure prior to interview
- ✓ Help you determine course of examination.
Roadmap for your interview

Different studies for different consultants

- ✓ Detailed or Brief

Should summarize how credit was established

Should include engagement letter

- ✓ Any violations to Circular 230



Research Credit Study Summary

Why is it helpful?

Who did the study – Is the provider under investigation?

What years - May need to open additional years.

Claim case or Original Return

Amount of the credit - LB&I or SB/SE criteria

Project Summary – This will be the area of what establishes the credit

QREs – Are they qualified?

Company Overview – Compare the overview with your own research (google, etc.)



Research Tax Credit Study Review

Four-part test IRC 41(d)

- Who determined what projects qualified as research?
- How did they determine which projects were qualified?
- Did the consultant use statistical sampling in their study?
- Why was a statistical sample used, and was it properly done?
- What documentation was reviewed to determine what activities qualified?
- Do the activities meet the four-part test under IRC § 41?



Four-part test IRC 41(d), continued

- What's technological in nature about the activities?
- What's the new and improved business component?
- What is the uncertainty that had to be overcome?
- What is the process of experimentation (POE) that you were required to perform in order to resolve that uncertainty?
- Does the study describe research, or does it appear to be lots of jargon/industry terminology to make it sound like research?
- Is the taxpayer in an industry that usually involves research?



Research Tax Credit Study Review

Eight Exclusions IRC 41(d)(4)

- ✓ Any indication that exclusions were considered?
- ✓ Is research or post production?
- ✓ Is it adaption for customer's need or duplication of existing component?
- ✓ Is it funded research - contingent on success/retain substantial rights?
- ✓ Does it sound like routine testing/quality control?
- ✓ Any overseas operations - foreign research?
- ✓ Is it a social science?
- ✓ Software-internal use?



Research Tax Credit Study Review

Qualified Research Expenses IRC 41(b)

- Who and what positions were included in the credit determination? Remember certain positions like sales, purchasing, bookkeeping, and administration may not be involved with research.
- Are they likely engaged in research, direct supervision (front-line managers) or direct support?
- Were high salary management/executives who have little to do with research activities included? How were the qualified wage percentages determined? Interviews?
- Who did they interview? When? Where?
- Do the percentages seem reasonable or inflated?
- Did they use a W-2 percentage method? If so, does the report indicate why they didn't use actual costs?
- Are there any supplies or contractor expenses included? If so, are they adequately described?

Base Years IRC 41(c)

- Are the correct base years identified (depending on the method used for the computation)?
- Is the base year computation included? How was the base year computation determined?
- Did they use estimates? Do the estimates have a credible evidentiary basis?
- Are they using start-up company rules? Is that allowable? Did they use the correct year for “year 1”?
- If not a “new” company, why using start-up company rules? What changed in the business?
- Does it make sense in light of the company’s history, sales, etc.?
- Is the consistency requirement addressed? Is it adequate?



Interview Preplanning

- Use IDR response and study review to formulate detailed interview questions.
- Get a handle on what projects the taxpayer is involved in.
- Educate yourself on the industry. Conduct electronic research - Google, Yahoo and other search engines.
- Lay out interview based on knowledge learned from credit study and external searching.
- If possible, bring an Engineer with you.
- Sample interview on SB/SE Resource -
Material/Job Aids Knowledge Management Page.

Who do we interview?

What questions do we want to ask?

What are effective interview techniques



What Questions to Ask?

- Follow your interview script
- Don't skip any questions unless not relevant
- Set "ground rules" during the beginning
- Get answers directly from the TP.
- Ask TP to walk through some of the projects and explain the components of research they do
- What documents & records did they rely upon?
- Was any sampling used?
- If the credit wasn't claimed prior to the return examined, why not?



What Questions to Ask?

- What's new as compared to what they were doing before they claimed the research tax credit? What has changed in the way they do business?
- How did they meet the consultant who did the study?
- Did they use estimates and why?
- Do they know there are exclusions? What was done to avoid inclusion of non-qualifying activities?
- Did anyone review contracts? Did consultant ask for or review contracts? Is review documented?
- Do they have notes or any form of documentation of discussions regarding the determination of credit?
Interviews?



Effective Interview Techniques

- The interview process is intended to shorten the total time consumed in the discovery portion of the audit.
- When selecting people to interview, be sure they have relevant knowledge of the projects conducted in the year under examination. Did they work there at the time?
- Should include persons interviewed by the consultant.
- Any documents, drawings or charts used by the interviewee to refresh their memory prior to the interview, should also be available for the Service's review.



Tour of the Business

Why is it important?

- ✓ See what “research” is being conducted
- ✓ Better understand the business
- ✓ Review any drawings or charts
- ✓ See evidence of process of experimentation

What questions should we ask during the tour?

- ✓ Where is the research conducted?
- ✓ Can you show me any current research being conducted?
- ✓ Can you explain the research process to me?
- ✓ Can you introduce me to the employees that did the research?



Effective Exam Techniques

Project focused

- ✓ Start with the project(s) and drill down to the employees' activities for developing the qualifying business component.
- ✓ Cannot be used if the taxpayer fails to allocate the total QREs wages by project.

Employee focused

- ✓ Start with the employees and verify their QRE wages by drilling back to the projects they worked on during the year.
- ✓ Determine the extent they performed qualified research on such projects.
- ✓ Cannot be used if the taxpayer fails to allocate each employee's (or sampled employees') total QREs wages or time to the projects.

Interview employees

Contact R&E Program Analyst (if needed)

Ask yourself – does the research claimed by the taxpayer meet the 4 part test?

Does the credit study match what is said by the taxpayer?

Is it research or just decision making?

- ✓ Examples – Does an electrical contractor have to decide which way the wiring has to be installed?



Tools Available

SB/SE Administrative Procedures and SB/SE Resource Materials and Job Aids Knowledge Management Pages

Knowledge Management [Credit for Increasing Research Activities Book](#)

Research Credit ATGs

Official IRS Research Credit Training Course 62004-102

Job Aids on SB/SE Knowledge Management Page

- ✓ 10 – Step Audit Tool
- ✓ Research Credit Report Writing Suggested Language 886A
- ✓ RGS R & E lead sheet for SB/SE examinations
- ✓ IDRs
- ✓ Interview
- ✓ Employee Interviews
- ✓ 3rd party summons attachment
- ✓ Case Law Summaries and R&E E-Nutshell Presentation with Cases



Questions?

Significant R&E Case Summaries

1

By

Kathy Dombrowski, Senior Counsel, SBSE, San Diego

June 30, 2021

Objectives

- Explain why case law matters, especially in the R&E credit program
- Using jurisdiction and precedence, explain the legal significance of any particular case
- Identify cases (District Court, Appeals Courts, and Tax Court) that opine on some aspect of R&E credit
 - And cases that you should know for all purposes
- Distinguish cases on the facts for use in your reports and rebuttals
- Describe possible penalties

Why Do We Care About Cases?

3

- ▶ They create what is called “common law,” which has the same force and effect as statutory law
- ▶ They supplement the Code and Regs with fact patterns and examples, particularly on aspects of the law that are not clear
- ▶ They give you ideas about how to approach your case, what items to ask for, and what positions to take
- ▶ Knowing what a case does or doesn’t stand for puts you in a position to refute the taxpayer’s characterization of a case
 - ▶ And that makes you look credible and competent

Reading Cases

4



- Every time you read a case you will see different things
- Partly dependent on the facts of the case you have in mind as you read it
- Partly dependent on your growing knowledge and experience
- Moral to the story: read any potentially applicable cases often

Quick Intro to Courts

District Courts, Appellate Courts, and the U.S. Supreme Court are Constitutional (Article III)

- Jurisdiction is based on subject matter and geography
- The US is represented by DOJ attorneys
- IRS counsel authorizes their involvement, and assists at all stages
- For deficiency cases, tax must be fully paid

Tax Court was created by Congress, and is an Article I Court

- Jurisdiction is granted by law (and it is limited); TP can choose venue
- The Commissioner is represented by counsel attorneys
- Provides a pre-payment forum

All Courts are open to the public

- We highly recommend that all Exam employees attend a Tax Court proceeding at some point – it is interesting and helpful

Precedence (*Stare Decicis*) (or, how much weight does this case have?)

6

- Only Federal system discussed here
- Case can be binding, persuasive, or less than persuasive
 - ⌘ Law can only be changed for compelling reasons
 - ⌘ Provides certainty in the law
 - ⌘ Cases can be distinguished on the facts

Precedence, cont.

Binding:

- All cases decided by the U.S. Supreme Court
- Cases decided by the Circuit Court to which appeal would lie
- Cases decided in the same District Court as the present case
- TC Opinions in Tax Court (unless there is a Circuit Court opinion on point for the applicable circuit)

Persuasive:

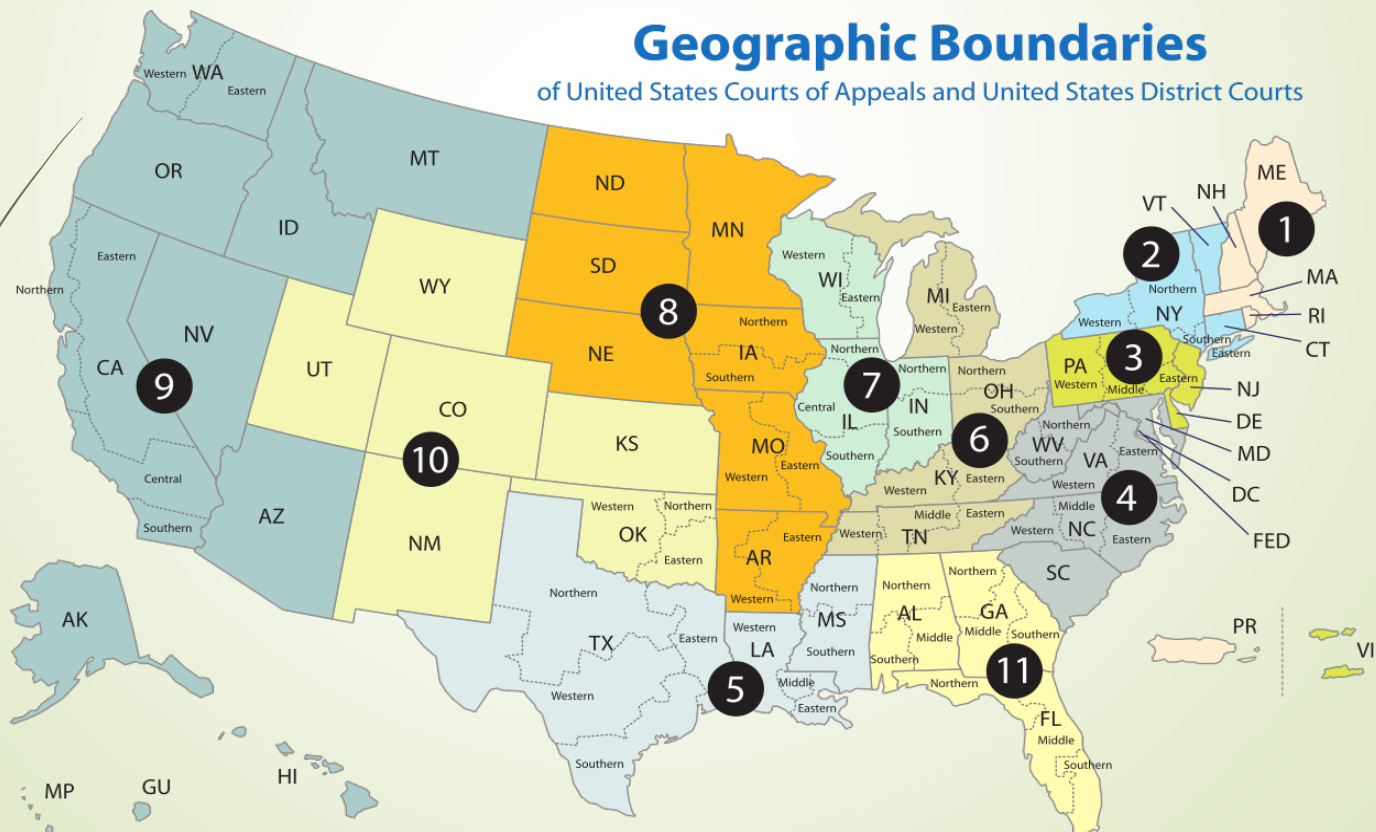
- Cases decided in other Circuit Courts
- Cases decided in other District Courts
- TC memorandum opinions

Something Less than Persuasive:

- TC Summary opinions
- Most published guidance
- Other sources (treatises, law reviews, etc.)

Precedence, cont.

- So only places with binding R&E credit law now are certain cases in a handful of District Courts, the Tax Court, and the Federal, 5th, 7th, 10th, and 11th Circuits
- You can tell what kind of case it is from its citation



List of R&E Cases (from Westlaw Legal Research Guide)

9

- § 10:2. *TSR, Inc. v. Commissioner* 96 TC 903 (1991)
- § 10:3. *Apple Computer, Inc. v. Commissioner* 98 TC 232 (1992)
- § 10:4. *Fudim v. Commissioner* TC Memo 1994-235
- § 10:5. *Research, Inc. v. United States* (D. Minn. 1995)
- § 10:6. *Sun Microsystems, Inc. v. Commissioner* TC Memo 1995-69
- § 10:7. *Fairchild Industries, Inc. v. United States* 71 F 3d 868 (Fed. Cir. 1995)
- § 10:8. *General Dynamics Corp. v. Commissioner* TC Memo 1996-153
- *§ 10:9. *Norwest Corp. v. Commissioner* 110 TC 454 (1998)
- § 10:10. *United Stationers, Inc. v. United States* 163 F 3d 440 (7th Cir. 1999)
- § 10:11. *WICOR, Inc. v. United States* 116 F. Supp. 2d 1028 (E.D. Wisc. 2000)
- § 10:12. *Lockheed Martin Corp. v. United States* 210 F 3d 1366 (Fed. Cir. 2000)
- § 10:13. *Lockheed Martin 2* 49 Fed. Cl. 241 (2001)
- § 10:14. *Eustace v. Commissioner* TC Memo 2001-66, affd. 312 F.3d 905 (7th Cir 2002)
- § 10:15. *Tax and Accounting Software Corp. v. United States* 310 F3d 1254 (10 Cir 2002)
- § 10:16. *United States v. McFerrin* (SD Tx 2008), revd. 570 F. 3d 672 (5th Cir. 2009)
- § 10:17. *Union Carbide Corp. v. Commissioner* TC Memo 2009-50, affd. 697 F.3d 104 (2nd Cir. 2012)

List of R&E Cases (from Westlaw Legal Research Guide)

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- § 10:18. *TG Missouri Corp. v. Commissioner* 133 TC 278 (2009)
- § 10:19. *Trinity Industries, Inc. v. United States* 691 F. Supp. 2d 688 (ND Tx 2010) aff'd in part & remanded 757 F. 3d 400 (5th Cir. 2014)
- § 10:20. *Deere & Co. v. Commissioner* 133 TC 246 (2009)
- § 10:21. *Procter & Gamble Co. v. United States* 733 F.Supp. 857 (SD Ohio 2010)
- *§ 10:22. *FedEx Corp. v. United States* (WD Tenn 2009)
- § 10:23. *Bayer Corp. v. United States* pending in WD Penn
- § 10:24. *Bayer 1: Use of statistical sampling to prove a research credit claim in litigation* (WD Penn 2012)
- § 10:25. *Bayer 2: The substantial variance doctrine in research credit litigation* (WD P 2012)
- § 10:26. *Shami v. Commissioner* TC Memo 2012-78, affd (5th Cir. 2014)
- *§ 10:27. *United States v. Davenport* 897 F.Supp. 2d 496 (ND Tx 2012)
- § 10:28. *Hewlett-Packard Co. v. Commissioner* 139 TC No. 8 (2012)
- § 10:29. *Geosyntec Consultants, Inc. v. United States* 2013 US Dist. LEXIS 140185 (SD Fla 2013), affd. 776 F. 3d 1330 (11th Cir. 2013)
- (*)§ 10:30. *Suder v. Commissioner* TC Memo 2014-201
- § 10:31. *Dynetics, Inc. v. United States* 121 Fed. Cl. 492 (2015)
- § 10:32. *CRA Holdings US, Inc. v. United States* 119 A.F.T.R.2d 2017-577 (W.D.N.Y. Jan. 26, 2017)

Case Groups:

Cases you have to read and know

Generally important:

- Union Carbide

Good for us:

- Shami
- Siemer Milling
- Quebe (41 & 179D)
- Little Sandy Coal
- Leon Max

Relied on by taxpayers:

- Suder
- Fudim
- Populous

Relied on by taxpayers, but:

- McFerrin
- Eustace

Software

- Norwest
- Davenport
- Suder

Funding

- Fairchild
- Lockheed
- Geosyntec
- Dynetics
- Meyer Borgman

How To Distinguish Cases

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Lawyers and Judges Distinguish Cases to Explain Different Legal Results

When an attorney (or a judge) distinguishes a case, we mean that the lawyer is explaining why one case is different from another case.

In the common law tradition, cases which present similar facts should have similar results. As a result, if an earlier case ends in one legal decision, judges in later cases will often follow that earlier decision, especially if a case presents similar facts.

But lawyers and judges (and Revenue Agents!) will distinguish cases – – analyze why they are different – – to explain why one case has a different result or should have a different result from a prior case.



How To Distinguish Cases

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- **Verify jurisdiction and weight of opinions**
 - Is it binding or persuasive on your case?
 - Is the language just dicta, or is it a holding on a matter that was at issue in the proceeding?
 - Has it been concluded, and are there appeals pending?
 - Is there any subsequent case law that modifies or overrules the holding?
- **Is it factually distinguishable?**
 - Any fact that affects the determination of an issue can be a distinguishing fact
- **DOES IT ACTUALLY SAY (AND STAND FOR) WHAT THE OTHER SIDE SAYS IT DOES?**
 - Remember, the other side's lawyers have to say something, even if it isn't exactly accurate



TSR, Inc. 96 TC 903 (1991)

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- P manufactured and sold games and game-related products. In developing the games, P conducted research on the various topics which formed the basis of the games. The information derived from the research was incorporated into the mechanics of the particular game. P also “play tested” the game prototype to determine if the game had any unintended results and to make adjustments designed to enhance the entertainment value of the game.
- HELD: The sec. 44F credit only applies to research that is scientific or technological in nature. Research and game development conducted by P is not scientific or technological in nature.
- Good case for: discussion of what “technological in nature” means
 - Note that the use of a computer does not transform the work into computer science

Fudim

T.C. Memo. 1994-235

- ▶ P was a renowned scientist with PhD and patents. He, his wife, and their daughter were the only employees. The co. claimed the credit for a rapid modeling process.
- ▶ HELD: P's testimony, applying Cohan, was sufficient to sustain an estimate of the wages as to P and his wife, but not as to the daughter.
- ▶ Significance: Cohan applies in R&E, but only when TP has proved its entitlement in the first place (that's why daughter was a no).
- ▶ Note: this was a 3 person activity, and clearly TPH and TPW were employed FT in it, so could testify knowledgeably about their activities

Research, Inc.
1995 WL 560140 (D. Minn. 1995)

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- ▶ TP had destroyed its records for the base years, and so the Court held that the TP has not met its burden (and the credit was denied).

☞ See also Quebe, 2019 U.S. Dist. LEXIS 8199, 2019 WL 250602 (S.D. Ohio January 17, 2019)



Fairchild Industries 71 F.3d 868 (Fed. Cir. 1995)

- Seminal case on funding
- Creator of high-tech military jets
- 1000 pages of tech specs
- TP must repay amounts rec'd if they fail
- The inquiry turns on who bears the research costs if the research fails
 - One party may claim the credit: is it the buyer or the manufacturer?
- Later, Geosyntec will explain that Fairchild *explicitly* placed the economic risk of failed research on the taxpayer

General Dynamics Corp. TC Memo. 1996-153

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- Taxpayer wanted IRS to be held to amounts determined in Engineer's report, the Tax Court said no. Absent a formal agreement to the contrary, the IRS is not bound by the statements of its agents or appeals officers.
- The Tax Court reviews cases *de novo*, and therefore what happened before the issuance of the Statutory Notice is irrelevant.
 - The case will be decided on the merits, based on all the evidence, so statements made during the exam or appeal don't change the result
- See also Greenburg's Express (later)

Norwest Corp. 110 TC 454 (1998)

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- Transitional software case: pre-2001 regs, but post-1986 Code change
 - Court misapplied the rules
 - Required discovery that exceeded what is known in the field
 - Misstated the POE test
 - Replaced with 2003 Regs
- Sample of 8 internal use software projects from universe of 67 that parties agreed were representative, the results of which could be applied to all according to an agreed-upon formula
 - One was determined to qualify (SBS) – so it can be looked at for purposes of seeing what might qualify

United Stationers, Inc.

163 F.3d 440 (7th Cir. 1999)

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WICOR, Inc.

116 F. Supp.2d 1028 (E.D. Wisc. 2000)

- United Stationers: Internal use software
- WICOR: software that improved customer service
- Flawed software cases with little to no value

Lockheed Martin Corp. 210 F.3d 1366 (Fed. Cir. 2000)

- ▶ The seminal case on the retention of substantial rights
- ▶ The right to use the results of the research without paying for it, even if that right is not exclusive, is a substantial right
 - ▶ Depends on the circumstances and the commercial or practical value of the retained right
 - ▶ Actual, practical ability to use the results may affect the analysis (security issues, contract provisions; compare Lockheed to Dynetics)
- ▶ But mere experience and increased knowledge is not a substantial right; see Regs. and Dynetics
- ▶ Random note: the question of the substantial variance doctrine was tested here, and gov't won

Lockheed Martin Corp. II 49 Fed. Cl. 241 (2001)

22

- Cross motions for Summary Judgment – both denied
- Material facts in dispute
- Issues:
 - Are expenses contract expenses or supply expenses?
 - How do funding and substantial rights apply with subcontractors?
- Because both motions denied, no real take away from this case (but it might still shed some light on the issues)

Summary
JUDGMENT

Eustace

TC Memo. 2001-66, aff'd. 312 F.3d 905 (7th Cir. 2002)

- S Corp. developed software for insurance agencies
- Another flawed analysis software case
- BUT...great for analysis of post-year estimates and recreations of QREs
 - The Tax Court held that TPs were not entitled to the credit, in large part because “petitioners' reconstruction of qualifying expenses was unreliable, inaccurate, incomplete, and wholly insufficient to establish what various workers did and whether such expenses qualify for the research credit.”

McFerrin

2008 WL 2736596 (S.D. Tex. 2008), rev'd. 570 F.3d 672 (5th Cir. 2009)

- McFerrin manufactured, stored, and purified chemical products
- Customers generally provided the specifications
- Testing was to confirm the product met the specifications
- Much of the work was quality control

McFerrin, Con't

What the District Court Said

The Study

(Fundamentally flawed and unreliable)

- Superficial on-site meetings
- Not conducted by knowledgeable individuals
- Did not give interviewees a definition of “qualified research”
- Did not use company product records
- No reliable basis for percentages
 - ✓ Failed to show who did what and when

Documents

- 70 boxes: Quantity is no substitute for substance and reliability
- Did not support QREs or novelty of projects

McFerrin, Con't

What the District Court Said

Testimony

The Testimony

- The testimony had limited value
- Witnesses were sincere, truthful and in good faith
- They had no clear recollection of time spent working on any project
- They gave only rough estimates
- Interviewing employees to reconstruct qualified activities is:
 - ✓ Unreliable
 - ✓ Inaccurate
 - ✓ Incomplete
 - ✓ Wholly insufficient

Estimating Using Cohan

- The court did not estimate, because estimates are only appropriate where taxpayer has already established qualified research and there is enough evidence in the record to allow the court to make a reasonable estimate

What the Appellate Court Said

The Appeal

- Vacated and Remanded
 - Because the District Court used the wrong definitions and regs. (relying in part on the flawed cases previously addressed)
- Remanded so the District Court could apply the correct legal standards to the facts of the case
- If the District Court concludes that research occurred (and the gov't conceded it might have under the correct rules), the Court should look to testimony and other evidence, including institutional knowledge, in determining a fair estimate (under Cohan)
- On remand, the parties settled, with the government getting most of what it sought

McFerrin, Con't

What [REDACTED]

- You have to accept the uncorroborated testimony of the people we interviewed
 - Regardless of who they are
 - Regardless of what they know
- Our study is proof
- The thousands of pages of documents we provided you is proof
- Our response: Neither we, nor the court, ever has to accept the uncorroborated testimony of witnesses, particularly when that testimony is suspect (time has passed, person isn't knowledgeable, etc.). But if it is determined that qualified research occurred, then testimony and documents can be used to help the Court estimate the amount of credit (if any) to which the TP is entitled. Further, the burden of proof is on the TP to establish its entitlement to the credit in the first place. See Section 6001.

Union Carbide Corp. & Subsidiaries

T.C. Memo. 2009-50, aff'd. 697 F.3d 104 (2nd Cir. 2012)

- The most complete discussion R&E credit issues of any case
- Five projects at issue: two were found to involve qualified research
 - Amoco anti-coking project: The court allowed about \$1000 in QREs based on credible testimony
 - UCAT-J project: No QREs allowed; no way to determine whether UC estimate was accurate
- Particularly noteworthy:
 - Degree of uncertainty that the tested process improvement would work
 - Relatively high standard for POE (more structured than the “discovering information” standard of 174)
 - Calculation of base period amounts, consistency requirement, and substantiation
 - Computations involving consolidated group
 - Supplies expenses when associated with production process is different than with the experimental product itself (clear and direct connection must be proved)
- Appellate Court noted that Congress’s intent was to provide a credit for the cost that a taxpayer incurs in conducting qualified research that would not otherwise occur
- Less wonderful:
 - Section 174 “Uncertainty” can be in the design of the product, even if there is no uncertainty as to capability or method
 - Wages allowed (only \$1000) was based solely on credible witness testimony

Union Carbide:

The Process of Experimentation

- ❖ POE is a process designed to evaluate one or more alternatives to achieve a result
- ❖ Requires either scientific method, or a methodical system of trial and error (simple trial and error is not enough; Union Carbide v. Comm'r, T.C. Memo. 2009-50, aff'd. 2nd Cir. (2012))
 - ID Uncertainty
 - ID Alternatives to Resolve
 - Evaluate Alternatives
- ❖ The “substantially all” part of the POE test is met only if 80% or more of a taxpayer's research activities constitute a process of experimentation for a qualified purpose.

TG Missouri Corp.

133 TC 278 (2009)

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- Injection mold company
 - It retained and depreciated some molds (not included in credit)
 - It sold others to its customers, even though it retained possession
- **Holding:** Items that are not depreciable in the hands of the taxpayer do not fail the § 174 test
- Other aspects of qualification not discussed

Trinity Industries, Inc.

691 F.Supp.2d 688 (N.D. Tenn. 2010), aff'd. & remanded 757 F.3d 400 (5th Cir. 2014)

- The boat builder case
- Major Issue: application of shrink-back rule with regard to business component (for purposes of finding that 80% or more of the taxpayer's research activities with respect to the BC involved a POE)
- Out of 6 boats, the Court concluded that 2 met the 80% or more threshold
 - Excellent discussion of Court's rationale with respect to each boat (but see Little Sandy Coal)
- Holding: if less than 80% of the TP's activities with respect to a BC constitute POE, then the TP has the burden to prove a shrink-back component qualifies
 - ❧ On appeal, the Court held that the TP must show a systematic POE (simple trial and error is not sufficient)
 - ❧ It also held that the consistency rule can be applied to exclude certain ships from the base years

Deere & Co.	133 TC 246 (2009)
Proctor & Gamble Co.	733 F. Supp.2d 857 (S.D. Ohio 2010)
Hewlett-Packard Co.	139 TC No. 8 (2012)

33

- Foreign branch income and expense computation issues
- May be changing under new tax law?

FedEx Corp.

WL 2032905 (W.D. Tenn. 2009)

34

- Discussing the roles of the 2001 proposed regs and 2003 final regs, as well as Announcement 2004-9, regarding the rules for internal use software.
- Began the journey into the software quagmire

Bayer Corp.

(W.D. Tenn. 2009)

35

- Tax refund suit in the United States District Court for the Western District of Pennsylvania (tax and interest of \$175 million)
- Pre-trial opinions on statistical sampling and the doctrine of substantial variance in the context of a research credit claim
- Statistical Sampling: Bayer wanted the Court to force the IRS to engage in statistically valid sample, then extrapolate to other cost centers
 - The Court said no, because that would effectively eliminate the TP's requirement to prove its entitlement to the credit
 - No court had ever imposed sampling on the government
 - BUT... Bayer did convince the Court to do a first trial on 50 samples to "test" the waters
- Substantial variance: Court did not dismiss b/c in litigation was the first time the IRS asked Bayer to identify its BCs (and significant other detail was provided with refund claim)

Shami

T.C. Memo. 2012-78

➤ An [REDACTED]

Farouk Systems, Inc.

- Formulated and manufactured hair care and cosmetic products
- Had a lab staffed with chemists and technicians
- QREs claimed for 300+ employees
- Only wages of two executives at issue in the trial (claimed 100% of wages)
 - ✓ CEO Shami was a hairstylist, paid approx. \$8 million/year
 - ✓ SVP McCall, a marketer and officer, was paid \$1.8-\$5 million/year

Shami, Con't.

- Discussion of allocation when a person performs both qualified and non-qualified work
- Burden of proof is on TP to prove amount of time spent performing qualified work
- Documents: mostly lab reports that did not substantiate the time executives spent performing qualified services
 - Also emails and internal memoranda to the executive attempting to link them with direct supervisory activities (but, significantly, no reply emails)
 - “facially inconclusive”
- Testimony: self-serving & unreliable
- Court declined to make an estimate under Cohan because there was no reasonable basis on which to do so

Shami, Con't.

741 F.3d 560 (5th Cir. 2014)

Affirmed in part, vacated in part, and remanded

- Tax Court OK in disregarding testimony because
 - the statements were self-serving
 - Witnesses had an incentive to mislead
 - It was general, at times inconsistent, and contradicted by the testimony of former employees
- McFerrin does not compel the Tax Court to make an estimate if there is no reasonable basis (or even if it could, it doesn't have to)
- Allowed supply costs because the IRS stipulated to them

Davenport

897 F.Supp.2d 496 (N.D. Tex. 2012)

- Developed internal use software based on an existing platform, and modified by IBM for TP's needs
- Gov't filed MSJ on many bases, including each of the 4 tests, base year computations, and several exclusions; the successful one was that there was no POE
- The Court granted the motion because the uncertainty regarding the capability, method, or design of the BC must be at the outset of the project (not during it)
 - Here, the TP was only testing the product produced by IBM to make sure it worked as intended
 - The Court also noted that the TPs relied "solely on conclusory arguments" and did not point to any evidence to refute the govt's position (██████ was opposing counsel)
- The Court also agreed with Union Carbide that the POE must include a methodical system using scientific process, not just trial and error

Geosyntec Consultants Inc.

2013 U.S. Dist. LEXIS 140185 (S.D. FL), aff'd. 776 F. 3d 1330 (11th Cir. 2015)

- Environmental engineering firm
- 6 contracts: 3 fixed lump sum and 3 cost-plus with cap
- Under the totality of the contracts, the 3 lump sum were unfunded, but the 3 cost-plus did not put enough risk on TP to be unfunded
- ✂ On appeal, Geosyntec challenged the district court's categorization of two of three cost reimbursement contracts as funded
 - TP argued cost of performance risk
 - Unsatisfactory performance risk
- Upon a careful review of both contracts, the 11th Circuit Court affirmed
 - Cost of performance and unsatisfactory performance were not the economic risks that were "contingent on the success of the research"
 - Particularly when price adjustments could be done, mitigating the risk
 - Distinguished facts from Fairchild

Geosyntec Consultants Inc., con't.

2013 U.S. Dist. LEXIS 140185 (S.D. FL), aff'd. 776 F. 3d 1330 (11th Cir. 2015),

- “Standard of Care” payment acceptance criteria is one important element in the funding analysis but may not be controlling if overcome by language in the balance of contract.
- All provisions of the contract must be “collectively” weighed to determine if contract activities are to be judged as “funded.”
- Proper determination of all contract terms and conditions may require IRS counsel support.

Suder

TC Memo. 2014-201

- ESI developed telephone-related products, both hardware and software
- █████ assisted with prior year credits, but Mr. █████, VP of Product operations, learned and did later years
- ESI claimed that 76 total projects qualified for the credit
 - 2/3 of the credit was from wages paid to Mr. Suder (approx. \$10 million/year)
 - ESI also claimed contract expenses related to patent research and prosecution
- For trial, the parties selected 12 projects as representative of the 76



Suder, Con't.

Issues

- Of the definition of qualified research, only the section 174 and process of experimentation tests were at issue (gov't conceded rest)
- Whether the TP substantiated its claims
- Whether Suder's wages were reasonable (citing Owensby & Krtikos, Inc. v. Comm'r, 819 F.2d 1313 (5th Cir. 1987))

Evidence

- ▶ More than 3,500 pages of testimony, 170,000 pages of exhibits
- ▶ Mr. Wende spent four days testifying. The court found him to be a highly credible and reliable witness.
 - ✓ Mr. Wende identified each employee for whom QREs were claimed
 - ✓ described their roles and responsibilities
 - ✓ explained how he determined their percentage allocations
- ▶ Five other witnesses corroborated Mr. Wende's testimony
- ▶ Even the government witnesses corroborated the testimony of the ESI witnesses.

Court Findings

- All 12 projects involved qualified research
- Eleven of the projects qualified for the credit
- ESI properly substantiated QREs
- Mr. Suder's wages were unreasonable under I.R.C. § 174(e)
- The accuracy related penalty did not apply
- In the end, only about 10% of the claimed credit was sustained

Dynetics, Inc. and Subsidiaries v. US

121 Fed. Cl. 492 (2015)

- Another MSJ
- Seven contracts out of 100 projects reviewed
 - Cost plus fixed fee (Air Force Research Laboratory)
 - Fixed price level of effort (US Army)
 - Fixed price and cost plus fixed fee ((US Army)
 - Time and Materials (Boeing)
 - Cost plus fixed fee (DIA)
 - Cost plus fixed fee level of effort (NASA)
 - Fixed price level of effort (US Army)

Dynetics, Inc. and Subsidiaries v. US

121 Fed. Cl. 492 (2015)

TP argued

- Established course of dealing (expected to produce successful result)
- Each K included inspection clause or warranty clause that expressly put it at risk of not being paid if unsuccessful research
- “Certain risks” if it failed to produce successful research
- Termination clauses put it at risk of nonpayment
- In response to gov’t’s alternate argument that it did not retain substantial rights, TP said it did

Dynetics, Inc. and Subsidiaries v. US

121 Fed. Cl. 492 (2015)

- RE: TP's course of dealing argument:
 - Relies on a shared understanding between the parties which can be used to clarify or supplement contract terms
 - The other party knew we would do whatever it took to get it right (at our own cost)
 - Nope: Parol evidence (only look outside the contract when there is ambiguity)
 - Under the patent ambiguity doctrine, contract ambiguities must be read in the govt's favor due to the contractor's duty to enquire
 - Nope: contrary to stated contract provisions

Dynetics, Inc. and Subsidiaries v. US

121 Fed. Cl. 492 (2015)

- RE: TP's inspection clause argument:
 - The inspection clause is not alone sufficient
 - Even if it was, this one is different than Fairchild
 - Even if it was the same as Fairchild, the payment and acceptance/rejection terms were different
 - Increased cost is not attributable to failed research
- Ultimately, each of the contracts' inspection terms were insufficient to create an unfunded situation
 - EVEN WHEN THE CONTRACT WAS A RESEARCH AND DEVELOPMENT CONTRACT

Dynetics, Inc. and Subsidiaries v. US

121 Fed. Cl. 492 (2015)

- RE: TP's warranty clause argument:
 - TP argued it was at financial risk because party could reject
 - Court said no
 - To the extent warranty is for supplies (parts) and the credit is based on wages, then warranty provision has no application
- Under the doctrine of contra proferentum, any ambiguity in a (non-government) contract is construed against the drafter (usually not the TP)
 - Less likely the TP will be at risk
- State law does not apply (citing Lockheed III and IV)

Dynetics, Inc. and Subsidiaries v. US

121 Fed. Cl. 492 (2015)

- RE: TP's "certain business risks" argument:
 - TP argued that it was at financial risks because
 - Of the uncertain nature of the work
 - It had to invest in staffing and resources without guarantee of payment
 - Of incremental orders placed under the contracts
 - The court said no – the only risk that matters is not being paid for unsuccessful research

Dynetics, Inc. and Subsidiaries v. US

121 Fed. Cl. 492 (2015)

- RE: TP's termination clause argument:
 - No, the TP is still entitled to all reimbursable costs for the work performed, with a comparable portion of its fee
 - Loss of opportunity for profit doesn't count
- Undefined contracts (terms, specifications, or price are not agreed upon before performance is begun) are reviewed the same way as the others – who bears the risk of unsuccessful research

Right??!!

Funding Case Law

➤ Funding issue developed in only three cases:

- Fairchild Industries, Inc. v. U.S., 71 F. 3d 868 (Fed. Cir. 1995)
 - K explicitly placed economic risk of failed research on Fairchild
- Geosyntec Consultants, Inc. v. U.S., 776 F. 3d 1330 (11th Cir. 2013)
 - Distinguished performing competently with performing successfully
- Dynetics, Inc. v. U.S., 121 Fed. Cl. 492 (2015)
 - Complete win for government

⊙ Substantial rights developed in only two and a half cases:

- Lockheed Martin Corp. v. U.S., 42 Fed. Cl. 45 (1998) rev'd. 210 F. 3d 1366 (Fed. Cir. 2000)
 - The right to use the results without paying
- Dynetics, Inc. v. U.S., 121 Fed. Cl. 492 (2015)
 - Limits rights, to a degree
- Tangel v. Comm'r, T.C. Memo. 2021-1

Recent Tax Court Opinions

Siemer Milling Company

T.C. Memo. 2019-37

- Taxpayer's mills & sells wheat flour,
- 2011 and 2012 before the court but TP filed claims dating to early 2000s
- 4 projects in 2011 & 5 projects in 2012
- Gov't won deficiency (not penalty), but opinion is less favorable than it should be (not appeal)
- No single project met all four § 41 tests, all projects failed the process of experimentation test

Populous Holdings

Docket No. 405-17, Court Order dated Dec. 6, 2019

- Taxpayer provided architectural design services.
- Order was dispositive of the case.
- Order blurs the lines between economic success and financial risk of research failure
- Taxpayers will cite to this order for these quotes: “
 - “. . . [A] conditional obligation to pay is not required for research to be considered unfunded under the fixed price contracts.” p.3.
 - Fixed price contracts are inherently risky for the contractor if the research is unsuccessful. Under fixed price contracts, the contractor must remedy failed research at its own expense.” p.3.
 - “Petitioner is paid for a work product at a fixed price. The work product included the need to perform research. If its research failed, petitioner would be required to incur additional expenses without additional compensation. Petitioner bore the financial risk of research failed.” p.3.
- Order assumes the claimed research activities are qualified (meets §§ 41 & 174), a nexus exists between the QREs and activities, and Taxpayer was not actually paid for research expenses.

Meyer Borgman & Johnson, Inc.

Docket No. 7805-16, Court Order dated Dec. 19, 2020

- Structural engineering firm providing consulting services to architects
- Motion for partial summary judgment → court order only addresses “risk of financial loss” under § 41(d)(4)(H)’s funding exclusion for 14 fixed-price or capped-price contracts.
 - Each contract limited the amount the taxpayer would be paid.
- The risk associated with a fixed-fee or capped-price contract is more “general economic risk.”
- Express terms or clearly implied terms are key to the analysis.
- “Contract provisions like quality assurance procedures, specific barometers for success, and mechanisms for inspection, evaluation, and acceptance show that payments made under the contracts were contingent on the success of the research required under the contract.” p.8.
- Petitioner requested reconsideration of funding issue in Dec. 2020 – order could be overturned - case is still pending in Tax Court.

Little Sandy Coal v. Commissioner

T.C. Memo. 2021-15

- ▶ Shipyard that designs and builds commercial vessels (barges, tankers)
 - ▶ Bifurcated trial
- ▶ Court primarily focuses on what counts as “substantially all of the activities of which constitute elements of a process of experimentation”
- ▶ What is POE? How is “substantially all” measured? What proof is needed to show POE?

Research activities that constitute a POE for a business component

All research activities for that business component
(that could be deducted under section 174)

$\geq 80\%$

Little Sandy Coal_{, cont}

What is substantially all?

- Taxpayer argued: "Demonstrating that the vast majority of the vessel, including every major system on the vessel, was re-engineered and redesigned meets the substantially all requirement." Little Sandy Coal, T.C. Memo 2021-15 at *25
- The Court said Section 1.41-4(a)(6), Income Tax Regs., requires that the substantially all test be applied in reference to activities--not physical elements of the business component being developed or improved." Little Sandy Coal, T.C. Memo 2021-15 at *25
 - A comparison of the physical elements is not a "reasonable basis" under Treas. Reg. § 1.41-4(a)(6). Little Sandy Coal, T.C. Memo 2021-15 at *25
- The Court also said
 - "Even if determining the design of every new element required a process of experimentation, we would not anticipate that the extent of that experimentation would vary in proportion to the size of each element." Little Sandy Coal, T.C. Memo 2021-15 at *26
 - "Determining the design of smaller, more complex elements might require more experimentation than determining the design of larger but simpler elements." Little Sandy Coal, T.C. Memo 2021-15 at *26
- Size doesn't matter

Little Sandy Coal_{, cont}

- ▶ Production employees engaged in the direct support of research activities that constitute qualified research are not engaged in qualified research activities
 - ▶ => production employees' time is not counted as POE
- ▶ Direct supervision of qualified research activities is not a qualified research activity
 - ▶ => direct supervision time is not counted as POE

Little Sandy Coal_{, cont}

- Role of the Pilot Model construction and testing
 - “[T]he classification of a product as a pilot model turns on the taxpayer's purpose in producing it.” Little Sandy Coal, T.C. Memo 2021-15 at *41
 - Activity of building a pilot model ≠ act of testing a pilot model
- Uncertainty
 - “[N]ovelty may create uncertainty, but resolution of that uncertainty need not require experimentation.” Little Sandy Coal, T.C. Memo 2021-15 at *36
 - “CIS' engineers made every effort to ensure the viability of a component's design before requiring their employer to incur the expense of fashioning the physical component. They may not always have achieved that goal: Evaluation of further design iterations might have been required in some cases after testing of the physical component proved the initial design defective. But that prospect does not establish that all novel components of the tanker were, by definition, used in a process of experimentation.” Little Sandy Coal, T.C. Memo 2021-15 at *36

Little Sandy Coal_{, cont}

■ Substantiation

- “The regulations, as amended in 2004, thus do not require taxpayers ‘to keep records in a particular manner.’ But a taxpayer’s records, however kept, must be ‘in sufficiently usable form and detail to substantiate that the expenditures claimed are eligible for the credit.’” Little Sandy Coal, T.C. Memo 2021-15 at *50
- “While the 2004 amendments to the regulations reflect a goal of reducing the need for taxpayers to keep records not otherwise necessary, the drafters accepted that they could not eliminate that possibility. CIS’ choice not to maintain detailed records of how its nonproduction employees spent their time placed on petitioner the burden of demonstrating--in some manner--the portion of those individuals’ work that did and did not involve a process of experimentation. Petitioner’s failure to introduce evidence on that point indicates a failure to comply with even the liberalized substantiation requirement adopted in 2004.” Little Sandy Coal, T.C. Memo 2021-15 at *50

Little Sandy Coal_{, cont}

- Applies and holds taxpayer accountable for the following:
 - Uncertainty at the start of a new or novel business component does not automatically mean all the activities are a POE. [*52]
 - Failure to meet a final test does not automatically mean everything would be scrapped and started anew. [*35]
 - “Novelty may create uncertainty, but resolution of that uncertainty need not require experimentation.” [*36]
 - Just because some parts of a business component are new or novel not automatically mean the construction of the entire business component is a POE. [*53]
 - Recordkeeping requirements: “The regulations . . . do not require taxpayers “to keep records in a particular manner.” [*50]
 - But, “[Petitioner’s] choice not to maintain detailed records of how its nonproduction employees spent their time placed on petitioner the burden of demonstrating—in some manner—the portion of those individuals’ work that did and did not involve a process of experimentation.” [*50]

Max v. Commissioner

T.C. Memo. 2021-37

- Fashion designer/manufacturer
- Taxpayer failed to show the activities in his design process are QRAs.
 - Opinion only addresses § 174, Technological Information, and Process of Experimentation Tests”
 - process of designing garments, fit testing, and fabric testing ≠ research and experimentation under section 41
- Addresses when uncertainty exists relative to employees’ knowledge & experience
- Technological Information test requires more than science operating in the background
- A true experimentation in the scientific or laboratory sense “must involve a methodical plan involving a series of trials to test a hypothesis, analyze the data, refine the hypothesis, and retest the hypothesis”
 - A “systematic trial and error methodology” ≠ a method of simple trial and error to validate that a process or product change meets the taxpayer’s needs.

Select Pending Tax Court Cases

Tangel v. Commissioner

Docket No. 27268-13, et al.



- Current Status: still pending before Tax Court

T.C. Memo. 2021-1: Opinion on Funding for one project in response to govt's MPSJ

- Court only addresses substantial rights under § 41(d)(4)(H) funding exclusion
 - “[T]he parties’ agreement controls in determining whether the taxpayer performing the research has retained “substantial rights.” *17
 - “Enercon may not use, except in its performance of the contract for Vericor, ‘any technical information’ or ‘tooling’ developed for Vericor, and that any technical drawings or other copyrightable materials developed by Enercon belong to Vericor. All ‘Information’ developed for Vericor and ‘all copies thereof’ must be returned to Vericor at Vericor’s request. Enercon in its offer letter recognized these restrictions, acknowledging that ‘[a]ll information, equipment, etc[.] generated as a result of this order are owned by Vericor only.’” Tangel, T.C. Memo 2021-1 at *14
 - Having to secure permission to use the research, with no conditions limiting the other party’s ability to withhold consent, prevents Enercon from possessing substantial rights. See *Dynetics, Inc. & Subs. v. United States*, 121 Fed. Cl. 492, 521 (2015), at *17.

Tangel, *cont.*

- Funding exclusion ensures that only one party is entitled to the credit
 - Acknowledges that there could be a split, and the determination is by business component:
 - If a taxpayer performing research for another person does retain substantial rights in the research, the research is nevertheless deemed funded “to the extent of the payments (and fair market value of any property) to which the taxpayer becomes entitled by performing the research.” *Id.* subpara. (3)(i). If the taxpayer’s total research expenses exceed the amount of “funding” as thus determined, the taxpayer may be entitled to an allocated partial credit. See *id.* subparas. (3)(ii), (6), Example (1). This determination is made project by project. See *id.* subpara. (3)(iii,) at *10,11.

Harper

Docket No. 26176-16

- [REDACTED]
- 2012 and 2013 (companion to 2008, 2010 case in Dist. Ct.); \$2.7 million (incl. [REDACTED])
- General Contractor, primarily for military
- Sampling and discovery disputes
- Respondent filed MPSJ (11/13/20; reply 1/4/21) on the Business Component issue for failing statutory requirements:
 - The business components that were assertedly “new or improved” as a result of research were not the business components “of the taxpayer;”
 - The designs claimed by petitioners were not “products” of the type required by the statute; they were more in the nature of pictorial representations of the construction services HCC was asked to perform; and
 - If the designs were products, they were not products held for sale or lease or used by HCC in its business (as contemplated by Congress).
 - Additionally, to the extent petitioners suggest that design uncertainty is all that is required to qualify a business component, petitioners are mistaken.
- Relied heavily on Congressional intent of statute

Felker

Docket No. 3871-17

- [REDACTED]
- 2 entities, 2 years at issue + 2 carry forward years
- Sampling dispute
 - Primarily a statistical sampling issue: size of sample, entities/years of sample
 - Numerous filings, hearings, experts
 - Court offered parties three options
 - Court expected to issue an order or opinion on issue (clock started 5/24/21)

Bugbee

Docket No. 19909-18

- [REDACTED]
- 2011, 2012, 2013
- Mixed regular credit and ASC
- Fashion designer
- Multi-year sampling used
 - TP included years not at issue in its sample
 - TP also included base years in its sample
- [REDACTED]

Betz, Lincoln

consolidated cases (Docket Nos. 21587-18, 21588-18)

- [REDACTED]
- Manufacturer of Air Pollution Control Systems
- Qualified Supplies Expenses v. Raw Materials
- Section 174 Test
 - Investigative Nature v. Construction/Manufacture
 - Union Carbide / Mayrath
- Pilot Model
- Exclusions: Funded Research/Adaptation/Ordinary Testing
- First week of trial held 6/21/21; remaining trial to be held by end of year

Select District Court Cases

District Court Cases

Audio-Technica U.S. Inc., No. 19-3469 (N.D. Ohio; June 2018) on appeal in 6th Cir.

PENDING

- Refund claim (██████)
- Jury trial (Govt loss)
- 5/21/19: Govt appealed to 6th Circuit (on issue of effect of base year stip on other years)
 - 6th Circuit vacated the FBP and remanded 6/20/20
 - Dist. Ct. has not acted yet (6/27/21)
- Takeaways:
 - FBP is a real issue
 - Careful writing is important

District Court Cases

Quebe (S.D. Ohio 2019)

- District Court case involving 41 and 179D
- Although the Government's motions for summary judgment were resolved by 'Entry and Order', these are published opinions that may be cited as precedent
- Can be cited as follows:
 - Section 41 - United States v. Quebe, 2019 U.S. Dist. LEXIS 8199, 2019 WL 250602 (S.D. Ohio January 17, 2019)
 - Quebe not entitled to use start up base periods
 - Quebe did not show that it did not engage in qualifying research activities in the 1980s
 - Court did not reach the issue of whether the electrical contracting work underlying the claimed credits satisfied the definition of qualified research
 - Section 179D - United States v. Quebe, 2019 U.S. Dist. LEXIS 12047, 2019 WL 330852 (S.D. Ohio January 25, 2019)
 - Quebe did not collaborate with the architects and engineers who designed the buildings—it was not a designer, but merely installed the lighting pursuant to their specifications
 - Questions about allocation letter

District Court Cases

CRA Holdings US, Inc. WL 370811 (W.D. N.Y. 2017)

- Refund claim for 2001, 2002 (██████)
- Much like Quebe (and others), the US and ██████ are engaging in much pre-trial activity regarding discovery and the like
- In the Decision and Order dated 1/26/17, the Court adopted statistical sampling as a way to resolve expansive research credit disputes in litigation
 - Will undoubtedly be used to try to force us into sampling
 - Only applies to WDNY, and is unique to the facts of the case
- TP claim based on 6100 projects, but reduced it to 159 during District Court proceedings
- 4/25/19: Govt filed MTD for LOJ based on lack of live case or controversy
- Ct. granted MTD 9/19/19

District Court Cases

Halpern, No. 17-4272 (C.D. CA)

- Refund claim for 2007 (TCC)
- 8/16/19: Govt's MSJ on the merits granted (unfortunately, the record is sealed so little detail is available)
 - TP was clothing designer/manufacturer
 - Claim that govt must audit S corp before 1040: no
 - TP's conclusory assertions and generalities insufficient to carry burden

Oehler, No. 18-07330 (N.D. IL)

- Erroneous refund suit – govt has BOP
- Govt MSJ on 6402 grounds and improper estimating methodology
 - Denied, but order is excellent for govt (Order dated 5/21/20)- lots of great, quotable language
 - “Cases like these may be fact-intensive, but a taxpayer who claims a refund that depends on details should not be surprised that it will have to spend time and money answering questions about those details”
 - Details about application of Cohan in erroneous refund suit
- Govt MPSJ filed 3/24/21
 - Based on the merits of 2 preliminary sample projects

District Court Cases

Harper, No. 18-2110 (S.D. CA)

- Refund claim for 2008, 2010 ([REDACTED])
- 4/25/19: Govt's MTD for LOJ granted
 - Taxpayer failed to provide sufficient facts with claim as required by Treas. Reg. 301.6402-2(b)(1)
- Appeal filed 8/8/19 (9th Circuit):
 - Govt lost based on the Court's finding that a four-year exam constituted a waiver of the IRS's right to enforce 6402 (concurring opinion found that defective claim was perfected during exam)
- Back to District Court for trial ([REDACTED])
- [REDACTED]
- Other District Court cases with issue

Old R&E Case: Mayrath 41 TC 582 (1964), aff'd. 357 F.2d 209 (5th Cir. 1966)

- TP built a luxury house (to live in), intending to include things he invented, which might prove to be marketable
- TP had no profit motive, and so was not in the trade or business of inventing home improvements (and no credit is allowed)
- The Tax Court also noted (in dicta) that
 - The TP's method of computing the R&E costs – determining the difference in price between his innovative house and a comparable one without innovations – was not valid
 - “...the experimental nature of the house itself is open to question. It may be true that, in petitioner's mind, some of the ideas were new, unique, or involved special problems. But the record as a whole reveals that many of the so-called ‘experimental’ features were either catalog or luxury items and that the special problems encountered were often the result of unusual combinations of materials, modifications of standard construction principles, or the utilization in residential construction of certain features commonly used in commercial construction.”

Some Other Significant Cases



Greenberg's Express, Inc. v. Commissioner, 62 T.C. 324 (1974)

In a deficiency proceeding, nothing that happened before the stat notice was issued is relevant (and it will be excluded)



Wichita Terminal Elevator Co. v. Commissioner, 6 T.C. 1158 (1946), aff'd, 162 F.2d 513 (10th Cir. 1947)

The failure of a party to introduce evidence within his possession and which, if true, would be favorable to him, gives rise to the presumption that if produced it would be unfavorable

Some Other Significant Cases



Commissioner v. National Alfalfa Dehydrating & Milling Co., 417 U.S. 134 (1974)

"[W]hile a taxpayer is free to organize his affairs as he chooses, nevertheless, once having done so, he must accept the tax consequences of his choice, whether contemplated or not * * * and may not enjoy the benefit of some other route he might have chosen to follow but did not."



Neonatology Associates, P.A. v. Commissioner, 115 T.C. 43, 99 (2000), aff'd, 299 F.3d 221 (3d Cir. 2002)

Three part test for reliance on advisors:

- First, was the adviser a competent professional who had sufficient expertise to justify reliance?
- Second, did the taxpayer provide necessary and accurate information to the adviser?
- Third, did the adviser's taxpayer actually rely in good faith on the judgment?

Reliance tends to be unreasonable when it is based on insiders, promoters, or their offering materials or when the person relied upon has an inherent conflict of interest that the taxpayer knew or should have known about

Some Other Significant Cases, con't.

- Cohan v. Commissioner, 39 F.2d 540, 543-544 (2d Cir. 1930)
 - If a taxpayer establishes entitlement to a tax benefit, but is unable to substantiate the precise amount, the Court may estimate the amount, bearing heavily against the taxpayer whose inexactitude is of his or her own making
 - BUT the taxpayer must present sufficient evidence (a reasonable basis) for the Court to form an estimate because without such a basis, any allowance would amount to unguided largesse
- Cohan does not apply to items that are subject to the section 274 substantiation requirements

A Common Issue: Misuse of the Cohan Rule Cohan v. Comm'r, 39 F.2d 540 (2nd Cir. 1930)

- Issues:
 - 1) whether the IRS (and the Court) “MUST” estimate an allowable credit based on the taxpayer's assertions, and
 - 2) whether the Cohan Rule implicitly provides that estimates can be used to determine how much time an employee spent doing qualified work
- Cohan Rule does not apply to QRAs.
- McFerrin establishes that the Cohan Rule applies to section 41 cases (570 F.3d 672 (5th Cir. 2009))
- Shami establishes that the limitations of Cohan also apply:
 - The taxpayer must prove entitlement to the credit
 - The taxpayer must provide a reasonable basis on which to make an estimate
 - Even then, the court will bear heavily against the taxpayer whose inexactitude is of his own making
 - Without such a basis, any allowance would amount to unguided largesse
 - Failure of either of these requirements prevents the Court from making an estimate
 - Shami v. Comm'r, T.C. Memo. 2012-78, aff'd. 741 F.3d 560 (5th Cir. 2014)

How to Use Orders in Your Cases

- ▶ You can't cite them as the basis for the rule – orders are only binding for one specific case
- ▶ You can use them as examples to help prove your point
- ▶ Practical tip: If the facts in the order are similar, you have a good model to start your write-up.

Consider them and assert/assess as appropriate

- 6662/6664 (accuracy-related)
 - Clay: get managerial approval before first offer to taxpayer to agree or go to Appeals
 - Address Neonatology
- 6663 (fraud)
 - Willful evasion of tax
- 6676 (erroneous claim for refund)
 - Assessable penalty
- 6694/6695 preparer penalties
 - On any particular return
 - En masse as a promoter/preparer case

Counsel is Here to Help!



Answer technical and legal questions



Help draft questions – IDRs, interviews, summonses



Attend interviews



Review and comment on documents (reports, letters, rebuttals, dissents)



Attend pre-Appeals conferences



Brainstorm, strategize

Other Counsel Things?



Summonses/enforcement



FOIA



Litigation holds

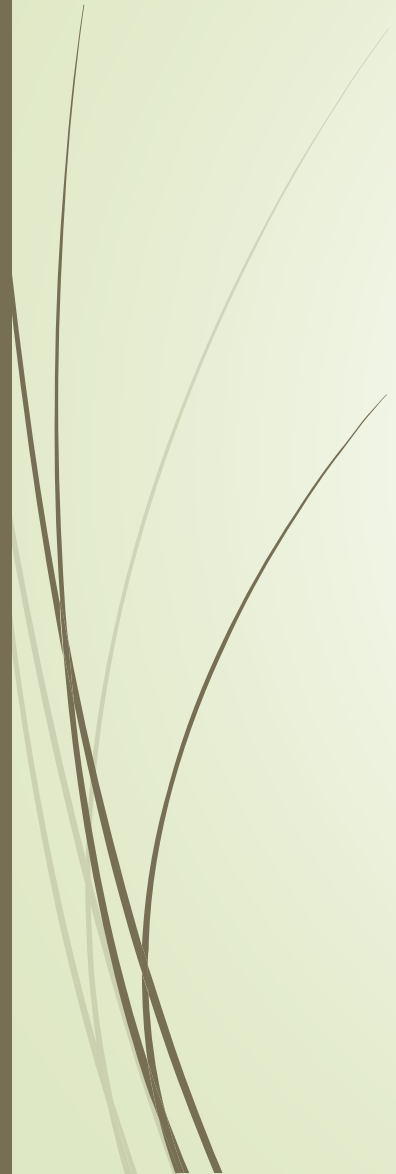


Anything else?

Additional Resources

- SB Resources in KM library:
 - [REDACTED]
- Cases by subject matter:
 - [REDACTED] also linked from KM library)
 - Embedded in sample RAR: [REDACTED]
- Westlaw Legal Guide to Research Credit
 - [https://www.westlaw.com/Browse/Home/SecondarySources/TaxSecondarySources/TaxTextsTreatises/LegalGuidetotheResearchCredit?transitionType=Default&contextData=\(sc.Default\)&VR=3.0&RS=cb1t1.0](https://www.westlaw.com/Browse/Home/SecondarySources/TaxSecondarySources/TaxTextsTreatises/LegalGuidetotheResearchCredit?transitionType=Default&contextData=(sc.Default)&VR=3.0&RS=cb1t1.0)
- Counsel, of course! For SBSE, see the MySBSE website, and click on the “contact counsel” button to access the list of R&E cadre members

Questions?



§ 41 Research & Experimentation Credit Checklist of Issues

No. of Attachments (equaling total business components ("BCs")): _____ RA: _____

TAXPAYER INFORMATION

Taxpayer claiming QRAs: _____

Entity type: ☐ Sole Prop/SMLLC ☐ PS ☐ S Corp. ☐ C Corp. ☐ Other

Flow through taxpayer(s) using the credit:

Name(s) _____ % of credit _____

	Years at issue	<u>Amended or</u> Entity	<u>Original Return</u> TP claiming
Year 1			
Year 2			
Year 3			
Year 4			
Year 5			

Name of company assisting in determination of credit (if any): _____

SUMMARY OF RESULTS

	<u>Yes, for year</u>					<u>No, for year¹</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Is the taxpayer entitled to the amount claimed in any year?	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐
Is the taxpayer entitled to a lesser amount in any year?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
How many BCs were qualified out of total examined per year (i.e. 1/8)?	—	—	—	—	—					
Is the number above based on a sample?	☐ yes					☐ no				

¹ If you cannot tell whether the answer should be "yes" or "no" because you do not have enough information to make an affirmative determination, mark "no" and, in the appropriate section below, check the substantiation box. In your workpapers, describe attempts to obtain the necessary information and why you don't have it.

INSTRUCTIONS

Complete one Entity Level Issues checklist for the taxpayer, and one attachment for each business component at issue.

For each element and subelement on the Entity Level Issues checklist and on each business component attachment, check the circle, underlined circle, or square indicating the appropriate response. If you leave a selection unchecked, it will be presumed to be either not applicable or in favor of the taxpayer.

Items that are **bolded** are those most often at issue.

Some questions are included in both the Entity Level Issues checklist and the business component attachment; answer these questions with respect to both (1) the entity or in general on the Entity Level Issues checklist page, and (2) the business component on the business component attachment. These “duplicative” questions are noted with an asterisk.

If your response is based on the taxpayer’s lack of substantiation on that issue (with either documents or credible testimony), check the correct circle or square on the merits, and also check the circle for “subst. issue” indicating that the taxpayer has failed to meet his legal burden of proof on that issue as required by section 6001 and case law.² In your workpapers, describe attempts to obtain the necessary information and why you don’t have it.

Legend:

- ☐: Either supports or does not conflict with the taxpayer’s claim for credit. May be discussed in RAR, but not required.
- ☐: Affects the taxpayer’s claim or computation, though is probably not fatal on its own. Should generally be discussed in the RAR.
- ☐: **FATAL** to the taxpayer’s claim for the credit in its entirety. Must be discussed in the RAR.

² If you are asserting fraud or another issue that shifts the burden of proof to the IRS, you will need to factor that into your analysis.

ENTITY LEVEL ISSUES

Issues at the entity level, or directed at the claim as a whole

Whether research is qualified, and not excluded, is determined on a per-business-component (by year) basis. Further, the cost associated with each business component is determined on an annual basis. Therefore, most issues associated with QRAs and QREs are addressed on the attachments.

NOTE: The use of the word "research" below does not indicate that research claimed by the taxpayer is qualified research, it is used only to refer to the activities that the taxpayer claimed were qualified research activities.

Substantiation Issues

- | | Yes | No | RAR pg. |
|--|-----------------------|--------------------------|---------|
| 1. Did the TP retain records in sufficiently usable form and detail to substantiate that the activity qualified for the credit? (§ 1.41-4(d); § 6001; <u>Shami</u>) | ☐ | ☐ | _____ |
| *** In the absence of such records, no <u>Cohan</u> estimate is legally permissible! | | | |
| 2. Does the documentation link QREs to a specific business component? (§ 41(d)(2))... | ☐ | ☐ | _____ |
| 3. Did you interview the taxpayer? | ☐ | ☐ | _____ |
| Did you find them credible? (<u>Suder vs. Shami</u>) | ☐ | ☐ | _____ |

Trade or Business Requirement (§ 1.41-2(a))

- | | Yes | No | Subst Issue? | RAR pg. |
|--|-----------------------|--------------------------|-----------------------|---------|
| 4. * Were the research expenses paid prior to commencing a new business? | ☐ | ☐ | ☐ | _____ |
| If yes, was the principal purpose of the research to use the results in a future trade or business of the taxpayer? (§ 41(b)(4)) | ☐ | ☐ | ☐ | |
| 5. * Was the research done by a partnership or joint venture? | ☐ | ☐ | ☐ | _____ |
| If yes, are all partners engaged in a business activity that will use the research? | ☐ | ☐ | ☐ | |
| If no, the expenses must be allocated as described in Treas. Reg. § 1.41-2(a)(4)(ii) | | | | |

Qualified Research Expenses (QRE)

Wages/Qualified Services (Treas. Reg. § 1.41-2(c) and (d))

- | | | | | |
|--|--------------------------|-----------------------|-----------------------|-------|
| 6. Did the taxpayer distinguish claimed wage expense for people who directly conducted research, who were first line supervisors of research, and who were in direct support of researchers or first line supervisors? | ☐ | ☐ | ☐ | _____ |
| 7. * Did the taxpayer claim any wage expense for administrative or overhead employees (incl. payroll, accounting, janitorial, corp. officers)? | ☐ | ☐ | ☐ | |
| 8. * Did the taxpayer estimate the wage expense? | ☐ | ☐ | ☐ | |
| * If yes, was the estimate based on estimated QRA? (<u>Shami</u>) | ☐ | ☐ | ☐ | |
| 9. Was the wage expense computed as % of qualified time divided by total time worked? | ☐ | ☐ | ☐ | |
| 10. Are wages claimed for owners and executives reasonable (I.R.C. § 174(e), <u>Suder</u>)? | ☐ | ☐ | ☐ | |

Supplies (that aren't associated with a specific BC) (Treas. Reg. § 1.41-2(b))

- | | | | | |
|---|-----------------------|--------------------------|-----------------------|-------|
| 11. * Were the supplies used in qualified research for qualified activities? | ☐ | ☐ | ☐ | _____ |
| 12. * Were any of the supplies of a character subject to depreciation in the hands of the taxpayer? (§ 41(2)(c)(ii), <u>TG Missouri</u>) | ☐ | ☐ | ☐ | |

	<u>Yes</u>	<u>No</u>	<u>Subst Issue?</u>	<u>RAR pg.</u>
<u>Contract Research Expenses</u> (that aren't associated with a specific BC) (Treas. Reg. § 1.41-2(e))				
13. * Was the expense incurred for research that would have been qualified if done by an employee of the taxpayer?	☐	☐	☐	
14. * Was the agreement entered into before the research was begun?	☐	☐	☐	
15. * Was the research performed on behalf of the taxpayer?	☐	☐	☐	
16. * Did the taxpayer have a right to the research results? ³	☐	☐	☐	
17. * Was the TP obligated to pay the contract even if the research was unsuccessful?	☐	☐	☐	
18. * Was the expense only for amts related to research performed this tax year?	☐	☐	☐	
19. * Did the TP claim contract expenses paid to a research consortium (at 75%)?	☐	☐	☐	
If yes, was the contractor a research consortium? (§ 41(b)(3)(C))	☐	☐	☐	
20. * Did the taxpayer claim contract expenses paid to an eligible small business, university, or federal laboratory (at 100%)?	☐	☐	☐	
If yes, was the contractor an eligible small business, university, or federal laboratory? (§ 41(b)(3)(D))	☐	☐	☐	
21. Did the taxpayer use a PEO?	☐	☐	☐	
If yes, was the PEO a certified PEO in the tax year at issue?	☐	☐	☐	
(starting 7/1/2016; § 7705 and T.D. 9768; https://www.irs.gov/tax-professionals/cpeo-public-listings)				

Computation Issues

Did the taxpayer use (Treas. Reg. § 1.41-1(a)):	Year 1	Year 2	Year 3	Year 4	Year 5	
Regular credit.....	☐	☐	☐	☐	☐	
Alternative incremental credit.....	☐	☐	☐	☐	☐	
Alternate simplified credit (for TY ending after 12/31/06)	☐	☐	☐	☐	☐	

	<u>Yes</u>	<u>No</u>	<u>Subst Issue?</u>	<u>RAR pg.</u>
22. Did the taxpayer <i>ever</i> elect to use the ASC?	☐	☐	☐	
If yes, did the taxpayer properly revoke the ASC election on a timely filed (with extensions) original return? ⁴ (Treas. Reg. § 1.41-9(b)(3)).....	☐	☐	☐	

Regular Credit

23. Did TP correctly compute the base amount? ⁵ (§ 41(c), § 1.41-3(a)).....	☐	☐	☐	
Is this the taxpayer's first year in business?	☐	☐	☐	
Has the taxpayer been in business 1-3 years?	☐	☐	☐	
Has the taxpayer been in existence > than four years, but not before 1986?	☐	☐	☐	
Was the taxpayer in existence in 1986?	☐	☐	☐	
24. Did the taxpayer use the proper gross receipts number for each of the base years (incl. inventory sold before COGS, but not including certain items)? (§ 1.41-3(c))	☐	☐	☐	

³ Note the omission of the word "substantial." It is unknown whether the Lockheed standard applies in a contract research scenario, or if any right to use the research qualifies.

⁴ If the taxpayer is a member of a controlled group, see rule in Treas. Reg. § 1.41-9(b)(4).

⁵ If the current year, or any of the four preceding years, were short tax years, see Treas. Reg. § 1.41-3(b).

	Yes	No	Subst Issue?	RAR pg.
25. Were the base year research expenses and gross receipts determined consistently with the definition of qualified research expenses and gross receipts for the credit year? ⁶ (§ 1.41-3(d); <u>Union Carbide</u> ; <u>Trinity Industries</u>)	☐	☐	☐	_____
Did the law change between the base years and the credit year?	☐	☐	☐	
Did the taxpayer's position with respect to certain expenses change between the base years and the credit year?	☐	☐	☐	
26. Did TP use estimates in computing base amount? (<u>Research, Inc.</u> ; <u>Quebe</u>)	☐	☐	☐	_____
27. Did TP's current year QRE exceed the base amount?	☐	☐	☐	
28. Did the wages used in computation include ONLY those people engaged in qualified research, or <u>direct</u> supervision (first line manager), or support?	☐	☐	☐	_____
<u>Alternative Incremental Research Credit</u> ⁷ (§ 1.41-8)				
29. Did the taxpayer elect to take the AIC for any applicable tax year?	☐	☐	☐	
<u>Alternative Simplified Credit</u> ⁸ (§ 1.41-9)				
30. Was the election made on a timely filed (with extensions) original return?	☐	☐	☐	
31. If it was made on an amended return, was it the first claim for the research credit that year?	☐	☐	☐	
If yes, did that tax year still have an open SOL?	☐	☐	☐	
32. If the taxpayer is a member of a controlled group, did any member of the controlled group claim the research credit before the TP amended a return to claim the ASC?	☐	☐	☐	
33. Were the base year research expenses and gross receipts determined consistently with the definition of qualified research expenses and gross receipts for the credit year? ⁹ (§ 1.41-9(c))	☐	☐	☐	_____
Did the law change between the base years and the credit year?	☐	☐	☐	
Did the taxpayer's position with respect to certain expenses change between the base years and the credit year?	☐	☐	☐	
<u>Other computation issues</u>				
34. Was <i>part</i> of the research done outside the US, Puerto Rico, or US possessions?	☐	☐	☐	_____
<i>Research expenses must be apportioned (§ 1.41-4(c)(7))</i>				
35. Did the taxpayer limit the amount of pass thru credit to the amount of income reported from the same flow-through entity? (§ 41(g))	☐	☐	☐	
36. If the taxpayer applied credits from a prior year, were the carry back and carry forward correctly applied in the intervening year(s)?	☐	☐	☐	_____
37. Did the taxpayer have a short tax year during any base or credit year? (§ 1.41-3(b))	☐	☐	☐	_____

⁶ This is true even if the base year SOL is closed. Note that, due to numerous legal and regulatory changes, businesses using base years before 1986 and/or 1998 MUST recompute their base year numbers.

⁷ Began with tax years beginning after June 30, 1996, and phased out for tax years beginning after Dec. 31, 2008

⁸ Any taxable year ending after Dec. 31, 2006

⁹ This is true even if the base year SOL is closed. Note that, due to numerous legal and regulatory changes, businesses using base years before 1986 and/or 1998 MUST recompute their base year numbers.

	Yes	No	Subst Issue?	RAR pg.
38. Did the taxpayer exclude from the wage expense any amount taken into account for purposes of the work opportunity credit? (§ 41(b)(2)(D)(iii))	☐	☐	☐	
39. Did the TP make a valid election under section 208C(c)(3)?	☐	☐	☐	_____
If no, did the TP deduct the expenses now being used to claim the credit?	☐	☐	☐	

Other Considerations

40. Was the taxpayer a member of a controlled group/group under common control?	☐	☐	☐	_____
If so, consider: Aggregation of expenditures (§ 41(f)(1))				
Allocations (§ 41(f)(2))				
Adjustments for certain acquisitions and dispositions (§ 41(f)(3))				
Effects on 280C election (§ 280C(c)(4))				
41. Were there "basic research payments" to any "qualified organization?" (§ 41(e)) ¹⁰	☐	☐	☐	_____

Penalties

Section 6662(a)¹¹

42. Did the taxpayer behave negligently?	☐	☐	☐	_____
Did the TP:				
Fail to make a reasonable attempt to comply with the provisions of this title?	☐	☐	☐	
Fail to keep adequate books and records or to substantiate items properly?	☐	☐	☐	
Exhibit careless, reckless, or intentional disregard of the rules or regulations?	☐	☐	☐	
43. Is there a substantial understatement?	☐	☐	☐	_____
44. Did the taxpayer claim a reasonable reliance defense? (Neonatology)	☐	☐	☐	_____
Did the taxpayer establish that:				
Its advisor(s) was competent in the R&E credit?	☐	☐	☐	
It provided its advisors will all relevant info for a proper determination?	☐	☐	☐	
It relied on its advisor's advice?	☐	☐	☐	
Its advisor(s) was not an insider? ¹²	☐	☐	☐	
45. Did the taxpayer claim any other penalty defense? (§ 6664).....	☐	☐	☐	_____
Did the TP meet the criteria for the defense?	☐	☐	☐	

Section 6663

46. Is any part of the TP's return fraudulent?	☐	☐	☐	_____
--	-----------------------	-----------------------	-----------------------	-------

Payroll Tax Offset

47. Did the taxpayer use any part of the credit to offset payroll taxes?	☐	☐	☐	_____
If yes, be sure to coordinate with ET agent and address relevant issues in RAR				

¹⁰ In general, this is research for research's sake, not for a commercial objective. If you have this issue, contact counsel.

¹¹ Don't forget to get your manager's approval in writing before advising the taxpayer of your intent to assert any penalties.

¹² An "insider" is a person relied upon that has an inherent conflict of interest that the taxpayer knew or should have known about; Neonatology.

Section 179D

48. Did the taxpayer claim a tax benefit under section 179D? ☐ ☐ ☐ _____
If yes, be sure to address relevant issues in RAR

Other Tax Issues

49. Did you examine issues other than sections 41 and 179D? ☐ ☐ ☐ _____
If yes, be sure to address relevant issues in RAR

Refund Claim Cases

Erroneous refund claim penalty (section 6676)

50. If the TP's claim was for a refund, was the claim amount more than allowed? ☐ ☐ ☐ _____
51. If yes, did the TP establish reasonable cause?¹³ (see IRM 20.1.5.18 (04-22-2019)) ☐ ☐ ☐ _____

Erroneous refund suit

52. Will you forward a request for erroneous refund suit to counsel? ☐ ☐ ☐ _____

Other Notes and Comments

Please briefly describe any additional issues here, and discuss them more fully in your RAR:

¹³ Reasonable basis standard for claims filed before 12/18/15

Attachment # _____ Business Component: _____

This worksheet does not apply to internal use software – use the IUS sheet instead. But do use this sheet for software developed solely for sale to or use by customers.

Years in which TP claimed expenses for this BC: Year 1 Year 2 Year 3 Year 4 Year 5
☐ ☐ ☐ ☐ ☐

Is this business component part of a sample? ☐ Yes ☐ No

If yes, describe the sampling methodology in your workpapers, including whether it is a judgment or statistical sample, and whether the TP identified the sample or Exam did. Also discuss what years this BC is intended to represent in the sample, whether you agree, and what was agreed to about extrapolation from this sample, if anything.

Summary of Determination

RAR pg. _____

Did this BC pass or fail the following (check all that apply):

	<u>Pass, for year</u>					<u>Fail, for year</u> ¹⁴				
	1	2	3	4	5	1	2	3	4	5
Business Component Test	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Section 174 Test	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Discovering Technological Information Test	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Process of Experimentation Test	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Exclusions (incl. adaptation, funding, taste/design)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Computation issues (incl. base years, QREs, other)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

	Year 1	Year 2	Year 3	Year 4	Year 5	None	
This BC qualifies, as claimed, for	☐	☐	☐	☐	☐	☐	_____
This BC does not qualify, but a shrunk-back element does, for	☐	☐	☐	☐	☐	☐	_____

Substantiation Issues

- | | <u>Yes</u> | <u>No</u> | RAR pg. |
|---|-----------------------|--------------------------|----------------|
| 1. Did the TP retain records in sufficiently usable form and detail to substantiate that the activity for this BC <u>qualified for the credit?</u> (§ 1.41-4(d); § 6001; <u>Shami</u>) | ☐ | ☐ | _____ |
| <i>In the absence of such records, no <u>Cohan</u> estimate is legally permissible</i> | | | |
| 2. Does the documentation link QREs to this business component? (§ 41(d)(2)) | ☐ | ☐ | _____ |
| 3. Did you interview the taxpayer? | ☐ | ☐ | _____ |
| Did you find them credible? (<u>Suder v. Shami</u>) | ☐ | ☐ | _____ |

¹⁴ If you cannot tell whether the answer should be "yes" or "no" because you do not have enough information to make an affirmative determination, mark "no" and, in the appropriate section below, check the substantiation box. In your workpapers, describe attempts to obtain the necessary information and why you don't have it.

Timing Issues

	<u>Yes, for year</u>					<u>No, for year¹⁵</u>				
	1	2	3	4	5	1	2	3	4	5
Did the taxpayer engage in <i>any</i> activity associated with this BC in each year?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Did the taxpayer have a contract to perform work on this BC for each year?	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Four Part Test

The Four Part Test must be applied separately to each business component. See § 41(d)(2), Treas. Reg. § 1.41-4(b)(1).

1. Business Component Test

RAR pg.

4. Is this BC a: ☐ Product ☐ Process ☐ Other ☐ None
(if multiple types are involved, activities for each must be determined separately; see § 41(d)(2)(C); Treas. Reg. § 1.41-4(b)(1) and (c)(2)(iii); Union Carbide)
5. Is this BC: ☐ Held for sale or lease ☐ Used in the taxpayer's business ☐ Neither
6. Was the research related to: (§ 41(d)(3))
☐ A new or improved function ☐ Performance ☐ Reliability or quality ☐ None

2. Section 174 Test (Treas. Reg. § 1.41-4(a)(2); § 1.174-2)

Subst

Yes No Issue? RAR pg.

If the expense would not be deductible under § 174, it would not qualify for the R&E credit

7. Were the costs incurred in connection with the TP's trade or business? ☐ Yes ☐ No ☐ Subst ☐ RAR pg. _____
8. Were the costs incurred for research in an experimental or laboratory sense? ☐ Yes ☐ No ☐ Subst ☐ RAR pg. _____

Were the research activities intended to eliminate uncertainty concerning the development or improvement of the BC?

☐ Yes ☐ No ☐ Subst ☐

Was the uncertainty prior to the start of any research activity? (Davenport)

☐ Yes ☐ No ☐ Subst ☐

Did the information available to the taxpayer establish the capability or the method for developing or improving the BC?

☐ Yes ☐ No ☐ Subst ☐

Did the information available to the taxpayer establish the appropriate design of the business component?

☐ Yes ☐ No ☐ Subst ☐

9. Was the product a pilot model, process, formula, invention, technique, patent, or similar?¹⁶ ☐ Yes ☐ No ☐ Subst ☐ RAR pg. _____
10. Were any of the costs for activities after the elimination of the uncertainty? ☐ Yes ☐ No ☐ Subst ☐ RAR pg. _____

¹⁵ If you cannot tell whether the answer should be "yes" or "no" because you do not have enough information to make an affirmative determination, mark "no" and, in the appropriate section below, check the substantiation box. In your workpapers, describe attempts to obtain the necessary information and why you don't have it.

¹⁶ A pilot model is a representation or model of a product that is produced to evaluate and resolve uncertainty concerning the product (Treas. Reg. 1.174-2(a)(4)).

	Yes No		Subst	Issue? RAR pg.
11. If there wasn't uncertainty as to the whole product, was there uncertainty as to a subcomponent of the product? (the shrink-back rule)	☐	☐	☐	_____
12. Were the expenditures for:				
Ordinary testing or inspection of materials or products for QC	☐	☐	☐	
Efficiency surveys	☐	☐	☐	
Management studies	☐	☐	☐	
Consumer surveys	☐	☐	☐	
Advertising or promotions	☐	☐	☐	
Acquisition of another's patent, model, production, or process	☐	☐	☐	
13. Were the costs reasonable under the circumstances? (Treas. Reg. § 1.174-2(a)(9); <u>Suder</u>)	☐	☐	☐	_____
3. Discovery of Technological Information Test (Treas. Reg. § 1.41-4(a) & (b))				
14. Was the information sought technological in nature? (TSR)	☐	☐	☐	_____
15. Did the research fundamentally rely on principles of physical or biological sciences, engineering, or computer science? (Treas. Reg. § 1.41-4(a)(4))	☐	☐	☐	_____
16. Did the taxpayer identify the scientific principles relied on? (<u>Siemer Milling</u>)	☐	☐	☐	_____
17. Did the taxpayer obtain a patent for the results of the research? (if yes, this test ONLY is presumed met; Treas. Reg. § 1.41-4(a)(3)(iii))	☐	☐	☐	
4. Process of Experimentation Test (Treas. Reg. § 1.41-4(a)(5); <u>Union Carbide</u>)				
18. Did the taxpayer describe a process intended to evaluate one or more alternatives to resolve the uncertainty?	☐	☐	☐	_____
Did the process rely on fundamentals of physical or biological sciences, engineering, or computer science?	☐	☐	☐	
Did the process include the identification and conduct of alternatives to resolve the uncertainty?	☐	☐	☐	
19. Was the uncertainty at the beginning of the taxpayer's research activities? (Treas. Reg. § 1.41-4(a)(5))	☐	☐	☐	_____
<i>Note: mere uncertainty DOES NOT establish that all activities undertaken to achieve the new or improved business component constitute a POE. Treas. Reg. § 1.41-4(a)(5)</i>				
20. Was the POE related to a new or improved function, performance, or reliability, of the business component?	☐	☐	☐	_____
21. Were substantially all (80% or more) of the research activities a POE for new or improved function, performance, or reliability of the business component? (Treas. Reg. § 1.41-4(a)(6))	☐	☐	☐	_____
22. Did the TP rely on computer functions in its claim to have met the POE test?	☐	☐	☐	_____
<i>(Treas. Reg. § 1.41-4(a)(7); <u>TSR</u>)</i>				
<i>Note: the use of computers to store, collect, manipulate, translate, disseminate, produce, distribute, or process data and information does not itself establish that a POE has occurred</i>				

[note: Prop. Regs § 1.41-4(a)(5) contain additional factors and tests for the POE test. They are not legally binding, but provide some insight]

Exclusions

	Yes	No	Subst Issue?	RAR pg.
Was the research:				
23. After commercial production? (§ 1.41-4(c)(2)) ¹⁷	☐	☐	☐	_____
Was the component ready for sale or use?	☐	☐	☐	
Did the component meets basic functional and economic requirement for sale or use?	☐	☐	☐	
Was it part of preproduction planning for a finished business component?	☐	☐	☐	
Was it part of tooling up for production?	☐	☐	☐	
Was it part of trial production runs?	☐	☐	☐	
Was it part of troubleshooting to detect faults in production equipment or processes?	☐	☐	☐	
Was it associated with accumulating data relating to production processes?	☐	☐	☐	
Was it part of debugging flaws in a business component?	☐	☐	☐	
24. Adaptation of an existing business component (to a particular customer's requirement or need)?	☐	☐	☐	_____
25. Duplication of an existing business component?	☐	☐	☐	_____
26. Survey or study for:				
Efficiency?	☐	☐	☐	
Management functions or techniques?	☐	☐	☐	
Market research?	☐	☐	☐	
Routine data collection?	☐	☐	☐	
Quality control?	☐	☐	☐	
27. Done outside the United States, Puerto Rico, or US possessions? ¹⁸	☐	☐	☐	_____
28. In the social sciences (incl. economics, business management, behavioral sciences), arts, or humanities? (§ 1.41-4(c)(8))	☐	☐	☐	
29. Related to style, taste, cosmetic, or seasonal design?	☐	☐	☐	_____
30. Funded (§ 1.41-4(c)(9))?	☐	☐	☐	_____
Did TP retain any rights in the research? (Lockheed; Dynetics)	☐	☐	☐	_____
Was TP paid regardless of results of research? (Fairchild; Geosyntec; Dynetics)	☐	☐	☐	_____
If part of the work was unfunded, can the TP substantiate the unfunded part? ...	☐	☐	☐	_____

Trade or Business Requirement

Trade or Business Requirement (1.41-2(a))

- | | | | | |
|---|-----------------------|--------------------------|-----------------------|-------|
| 31. Did the research relate to the <i>taxpayer's</i> trade or business? ¹⁹ (§ 1.41-2(a)) | ☐ | ☐ | ☐ | _____ |
| 32. Was any contract research intended to be transferred to another in return for license or royalty fees, and not used by the taxpayer in its trade or business? | ☐ | ☐ | ☐ | |

¹⁷ Clinical testing of a pharmaceutical is usually not considered "after commercial production." § 1.41-4(c)(2)(iv)

¹⁸ U.S. Virgin Islands, Guam, American Samoa, and The Commonwealth of the Northern Mariana Islands. Applies to both in-house and contract expenses. See also the section on computation issues.

¹⁹ This is a slightly different test than the section 174 trade or business requirement – here, the research expense must relate to the taxpayer's particular business, not merely be an expense incurred by a business taxpayer (even if for research).

	Yes	No	Subst Issue?	RAR pg.
33. * Were the research expenses paid prior to commencing a new business?	☐	☐	☐	
If yes, was the principle purpose of the research to use the results in a future trade or business of the taxpayer? (§ 41(b)(4))	☐	☐	☐	
34. * Was the research done by a partnership or joint venture?	☐	☐	☐	
If yes, are all partners or venturers engaged in a business activity that will use the research?	☐	☐	☐	
If not, the expenses must be allocated as described in Treas. Reg. § 1.41-2(a)(4)(ii)				

Expenses

Wages/Qualified Services (Treas. Reg. § 1.41-2(c) & (d))

35. Did the TP identify which employees performed direct research vs. direct supervision vs. direct support?	☐	☐	☐	
36. Were all of the supervision wages for people who were first line managers? (§ 1.41-2(c)(2))	☐	☐	☐	
37. Were all of the wages claimed for "direct support" for people who directly supported the research or first line supervision of research? (§ 1.41-2(c)(3))	☐	☐	☐	
38. Did the taxpayer claim any wage expense for administrative or overhead employees (incl. payroll, accounting, janitorial, corp. officers)?	☐	☐	☐	
39. Did the TP identify the people who performed research for this BC in each year?.....	☐	☐	☐	
40. Did the TP describe the work each person did for this BC in each year?.....	☐	☐	☐	
41. Did the TP estimate the time spent performing QRAs on this BC in each year?.....	☐	☐	☐	
If yes, was the TP's estimate of QRAs based on credible evidence (documents or testimony)? (Eustace)	☐	☐	☐	

Supplies (Treas. Reg. § 1.41-2(b))

42. Were the supplies used in the conduct of qualified research for qualified activities?	☐	☐	☐	
43. * Were any of the supplies of a character subject to depreciation in the hands of the taxpayer? (§ 41(2)(c)(ii); TG Missouri)	☐	☐	☐	

Contract Research Expenses (Treas. Reg. § 1.41-2(e))

44. Was the expense incurred for research that would have been qualified if done by an employee of the taxpayer?	☐	☐	☐	
45. * Was the agreement entered into before the research was begun?	☐	☐	☐	
46. * Was the research performed on behalf of the taxpayer?	☐	☐	☐	
47. Did the taxpayer have a right to the research results? ²⁰	☐	☐	☐	
48. Was the taxpayer obligated to pay the contract even if the research was unsuccessful? ...	☐	☐	☐	
49. Was the expense claimed only for amounts paid for research performed in this tax year (regardless of when paid)?	☐	☐	☐	

²⁰ Note the omission of the word "substantial." It is unknown whether the Lockheed standard applies in a contract research scenario, or if any right to use the research qualifies.

	<u>Yes</u>	<u>No</u>	<u>Subst</u> <u>Issue?</u>	<u>RAR pg.</u>
50. * Did the taxpayer claim contract expenses paid to a research consortium (at 75%)?.....	☐	☐	☐	
Was the contractor a research consortium? (§ 41(b)(3)(C))	☐	☐	☐	
51. * Did the taxpayer claim contract expenses paid to an eligible small business, university, or federal laboratory (at 100%)?	☐	☐	☐	
Was the contractor an eligible small business, university, or federal laboratory? (§ 41(b)(3)(D))	☐	☐	☐	