



# What's News in Tax

Analysis that matters from Washington National Tax

## U.S. Tax Court Disallows Research Tax Credit in *Little Sandy*

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In *Little Sandy*,<sup>1</sup> the Tax Court disallowed a taxpayer's research tax credit claim under sections 38 and 41(a)<sup>2</sup> for expenses incurred by the taxpayer's subsidiary. Most significantly, the Tax Court evaluated the elements of a process of experimentation, focusing on the eligibility of direct supervision, direct support activities, and supplies costs. While we wait to see if the *Little Sandy* taxpayer files an appeal in the case, now is a good time to review the facts and issues and consider the practical implications for taxpayers claiming the research credit.

### Background

At the beginning of the *Little Sandy* controversy, the IRS determined a deficiency in the taxpayer's federal income tax for its tax year ended June 30, 2014, and an accuracy-related penalty under section 6662 for that same year. The deficiency arose from the IRS's disallowance of a claimed research credit. The claimed credit relates to activities conducted by taxpayer's shipbuilding subsidiary, Corn Island

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<sup>1</sup> *Little Sandy Coal Company, Inc. v. Commissioner*, T.C. Memo. 2021-15 (Feb. 11, 2021) ("Little Sandy").

<sup>2</sup> Unless otherwise indicated, section references are to the Internal Revenue Code of 1986, as amended (the "Code") or the applicable regulations promulgated pursuant to the Code (the "regulations").

Shipyard, Inc. (“CIS”), in developing 11 vessels. Per an agreement between the parties, the trial addressed four issues related to just two (a tank barge project and a dry dock project) of the 11 projects as follows:<sup>3</sup>

- Whether the taxpayer met its burden of proof that substantially all (80 percent or more) of the activities involved elements of a process of experimentation to be qualified research with respect to the business components identified for the building of a tank barge and a dry dock
- Whether any exclusion from qualified research applied
- The includible amount of qualified research expenses (“QREs”) for the projects

The Tax Court held:

- The requirement of sections 41(d)(1)(C) and 1.41-4(a)(6) that substantially all (at least 80 percent) of a taxpayer’s research must constitute elements of a process of experimentation **applies to activities—not to physical components of the product being developed or improved**. Consequently, the requirement is not satisfied simply because at least 80 percent of the product’s elements differ from those of products the taxpayer previously developed.
- **One who provides services in direct supervision or support of research is not “engaged in” research**. Therefore, the activities of such a person cannot “constitute elements of a process of experimentation.”
- Supplies are not activities, when the fraction described in section 1.41-4(a)(6) is computed using costs as a measure of activities, **the costs of supplies used in the development of the product are not taken into account**.
- **Taxpayer has not met its burden of proving that substantially all of CIS’s research activities in developing the vessels at issue constituted elements of a process of experimentation**. None of the expenses CIS incurred in that development are QREs.

## Analyses of Key Issues

Although there are many areas of potential disagreement with the reasoning in the Tax Court’s opinion, two main issues are (1) the eligibility of direct supervision and direct support activities as elements of a process of experimentation and (2) the eligibility of supplies costs in determining whether substantially all of the activities constitute elements of a process of experimentation.

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<sup>3</sup> In addition to the above two projects, the Tax Court also analyzed third party contractors costs related to amounts paid by CIS to Tell City Boat Works (“TCBW”). TCBW was itself a party to an Indiana Tax Court case involving the IN R&D tax credit, see *Tell City Boatworks, Inc. v. Indiana Department of State Revenue*, Case No. 18T-TA-00004.

### *The Eligibility of Direct Supervision and Direct Support Activities as Elements of a Process of Experimentation*

In applying the process of experimentation test, the Tax Court drew an artificial and unsupported distinction between (1) engaging in research and (2) engaging in direct support and direct supervision of research activities. In summary, sections 41(b)(2)(B) and 1.41-2 provide that the term “qualified services” means services consisting of:

- **engaging in qualified research, or**
- **engaging in the direct supervision or direct support** of research activities which constitute qualified research.

In contrast with the statement in the opinion that “In fact, section 1.41-2(c)(3)(ii), Income Tax Regs., tells us that the work of the production employees would not be considered part of that process of experimentation”, it should be noted that in section 1.41-2(c)(3)(ii), which provides examples of both qualifying and non-qualifying direct support activities, the only non-qualifying examples are “general administrative services, or other services only indirectly of benefit to research activities.” The activities of production employees that construct a prototype or first of a kind ship are not indirect activities, but rather directly benefit research activities in creating an experimental model.

The Tax Court opinion further states that “The distinction that section 41(b)(2)(B) draws between “engaging in qualified research” and “engaging in the \* \* \* direct support of research activities which constitute qualified research” allows no other conclusion” is erroneous because rather than drawing a distinction between the types of qualified activities, the “or” in section 41(b)(2)(B) is an inclusive statement intended to cast a wide net to capture the full range of a research and development (“R&D”) project team’s activities, i.e., to capture all of (1) engaging in qualifying research; (2) engaging in direct supervision of qualified research; and (3) engaging direct support of qualified research.

### *The Eligibility of Supplies Costs in Determining whether Substantially All of the Activities Constitute Elements of a Process of Experimentation*

The Tax Court held that “Because the fraction described in section 1.41-4(a)(6), Income Tax Regs., considers activities, the supply costs petitioner claims as QREs for Project 720 are not taken into account in computing the fraction.” This exclusion of supplies costs from the calculation of the substantially all rule ignores that fact that the “measured **on a cost** or other consistently applied reasonable basis.” The costs of performing a test include not only the allocable portion of an employee’s time in running the test, recording the test results and analyzing the test results, but also the costs of the supplies used in the test itself. Supplies used in a process of experimentation include a nearly limitless variety of materials that all should properly be considered part of process of experimentation activities. For example, supplies used in testing activities include:

- Supplies used in testing the efficacy of pharmaceutical drugs
- Solvents, chemicals, and gases used in developing and testing new and improved chemicals, materials, and manufacturing processes

- Gasoline and oil used in engines when testing whether automotive components result in higher fuel efficiency
- Biological materials used in cultures used to test for the effectiveness of manufacturing processes

A reasonable approach to the aggregate cost of the testing activities should include the costs of the supplies used therein.

## The Elements of a Process of Experimentation Activities Are Many and Related Costs include Supplies Costs

Long-standing scientific consensus is that repeatable testing is a core element of scientific research, and this led to the concept of the scientific method. A summary of some of the elements of a process of experimentation in the context of efforts to develop vaccines for COVID-19 are summarized as follows:

Develop and test a hypothesis (e.g., we can develop an effective vaccine) through study of patients that already are suffering from the virus (using supplies such as laboratory tests of blood samples); explore different vaccine types (e.g., RNA or mRNA vaccine; Non-replicating viral vector; Whole virus vaccine; Protein subunit; One dose versus two; etc.); develop candidate vaccine using supplies (e.g., cell culture mediums; cell cultures; An adjuvant is a substance added to some vaccines to enhance the immune response of vaccinated individuals, syringes, etc.) ; perform animal and human testing (e.g., FDA Phase I clinical trial(s); FDA Phase II clinical trial(s); FDA Phase III clinical trials(s)) using various supplies (e.g., candidate drug; placebo drugs; syringes, etc.); collect and analyze the results; have results evaluated by the FDA.

The above elements of a process of experimentation require the work of a team of individuals, performing one or more of the three types of qualifying research activities. They also require the use of supplies in performing an essential element of the process of experimentation, i.e., testing. Therefore, each of the three qualifying activities, and the related supplies, should be used in determining whether the substantially all process of experimentation test has been met.

## Application of the Tax Court's Holdings

### *Lack of Substantiation*

Although the Tax Court may have been misguided in its application of the process of experimentation test, even with the Tax Court's interpretation of the test there is some good news in the opinion because it indicated that with some additional establishment of details the nature and amount of activities, the types of projects involved in *Little Sandy* can be sustained. The Tax Court stated "If production employees' activities were excluded from both the numerator and denominator, the fraction would take into account only the activities of the engineering group and CIS management. In that case, the research CIS conducted in developing the tanker would satisfy the substantially all test of section 41(d)(1)(C) if at least 80% of the research activities engaged in by members of engineering

group and CIS management as part of that project constituted elements of a process of experimentation.”

The Tax Court recognized that the CIS might have been handicapped in its ability to demonstrate the satisfaction of the substantially all test by the absence of any nontax reason for them to track in detail the work performed by members of its management and engineering teams. The Tax Court did note that the taxpayer’s choice not to maintain detailed records of how its nonproduction employees spent their time placed the burden of demonstrating—in some manner—the portions of those individuals’ work that did and did not involve a process of experimentation. Failure to introduce evidence on that point indicates a failure to comply with even the liberalized substantiation requirement adopted in 2004.

The court ruled Little Sandy only proved the design of *some* of the tanker’s elements were resolved only during construction, and not the design of the vessel as a *whole* remained materially uncertain until construction was complete. When claiming a pilot model position, we need to ensure we are focused upon the whole vs. just the parts, and the key example to reference would be related to integration risk and the domino effects it can have on the entire ship (assuming that the pilot model claim is not based upon a “shrink back” position).

The court also claimed that the taxpayer did not demonstrate that novel components were tested through a process of experimentation, and that resolution of the business component’s technical uncertainties did not need such a process. This claim leads to the conclusion that the production employees were not qualified, as well as not adequately explaining the integration risk between any new components to the taxpayer’s ultimate goal, i.e. a new first-in-class ship. Section 1.174-2(a)(4) defines 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 a component of the product.

### *Primary Purpose Test*

In the *Calculation of Relevant Fraction* section of the opinion, the Tax Court creates an artificial standard for the definition of a pilot model as highlighted in the excerpt below (emphasis added).

It is far from clear, however, that the Apex tanker qualifies as a “pilot model”, as defined by section 1.174-2(a)(4), Income Tax Regs. As explained above, **the classification of a product as a pilot model turns on the taxpayer’s purpose in producing it.**

In support of this position, the Tax Court references various court cases<sup>4</sup> and states that “As a general rule, section 174 applies to the costs of developing the concept of a product but not to the costs of building the product.” The Tax Court recognizes that this case predates the 2014 amendments to section and further states that the amendments “clarified that point by adopting, for the first time, a definition of a pilot model.”

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<sup>4</sup> See *Mayrath v. Commissioner*, 41 T.C. 582, 590 (1964), *aff’d*, 357 F.2d 209 (5th Cir. 1966); *Union Carbide Corp. v. Commissioner*, 2009 WL 605161, at \*79 (citing, *inter alia*, *Mayrath*, 41 T.C. at 590).

Section 1.174-2(a)(4) defines a “pilot model” as follows.

For purposes of this section, the **term pilot model means 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 paragraph (a)(5) of this section applies, a component of the product.

The Tax Court fails to provide any support of its “primary purpose” test. First, the court does not cite **any authoritative guidance** noting the taxpayer’s purpose and second, it fails to recognize that the definition of a pilot model under section 1.174-2(a)(4) “includes a fully-functional representation” of the product, which clearly includes more than just models.

### *Shrinking-back Rule*

Section 1.41-4(b)(2) has a taxpayer friendly shrinking-back rule that provides that if the requirements for the R&D credit are not met at the overall business component level, the taxpayer can apply the tests at subsets of the business component.

However, in *Little Sandy* it was noted that “Like the taxpayer in *Trinity Indus.*, 691 F. Supp. 2d at 692, petitioner has chosen to employ an “all or nothing” strategy that prevents us from applying the shrinking-back rule of section 1.41-4(b)(2), Income Tax Regs., to identify [\*56] elements of either the Apex tanker or the dry dock whose development involved qualified research.” If a shrinking-back analysis had been pursued, potential sub components or “chunks” of the sample projects may have been determined to have met the process of experimentation and then, theoretically, the court would have then allowed the direct supervision, direct support, and supplies costs associated with the qualifying sub components.

### *Trinity Industries, Inc. v. United States*

The Tax Court declined to follow the *Trinity Industries* case, noting the 5th Circuit Court’s opinion did not explain how it made the calculation to determine the sustainably all percentage.

## Practical Implications of Little Sandy

Taxpayers and their advisors may focus more on establishing the character of specific employee activities, e.g., time surveys should include categories for:

- Engaging in qualified research activities
- Engaging in direct supervision activities
- Engaging in direct support activities

In addition, nexus between qualifying projects and a process of experimentation can be established via:

- Time tracking or project tracking when available
- Detailed time surveys
- Named as a preparer or reviewer in project related documents
- Laboratory notebooks, testing logs, calendar entries, diaries
- Named on patent applications as an inventor
- Performance reviews
- E-mails

## Conclusion

Although the Tax Court issued an opinion in *Little Sandy* on February 11, 2021, a final decision has not been entered yet. The parties may still need to submit computations for entry of a decision, and then an actual decision by the Tax Court will be issued. Because taxpayers and the government have 90 days from when a decision is entered during which to appeal, it may be a while before we know whether an appeal will be filed. An appeal of *Little Sandy* would go to the Seventh Circuit Court of Appeals, and we will monitor whether an appeal is filed. In the meantime, taxpayers should continue to remain focused on documenting with specificity the various activities that involve elements of a process of experimentation and establishing nexus between claimed costs and qualified activities.

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