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October 2, 2024

Internal Revenue Service, CC:PA:LPD:PR (Notice 2023-63)
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, D.C., 20044

Via electronic submission

Re: TEI Comments on Section 174 and Notice 2023-63 with respect to the Treatment of Computer Software Development (Supplemental Comments)

Dear Sir or Madam:

The 2017 Tax Cuts and Jobs Act ("TCJA")[1] amended section 174[2] to require the capitalization and subsequent amortization of specified research or experimental expenditures ("SREs"), including any amounts paid or incurred in connection with computer software development ("software development costs"). Further, under the TCJA, the amortization of SREs which are paid or incurred with respect to any property that is disposed, retired, or abandoned during the amortization period is not accelerated on account of such disposition, retirement, or abandonment, but must continue over the prescribed period. On September 8, 2023, the Internal Revenue Service (the "Service") in conjunction with the Department of the Treasury ("Treasury" and, together with the Service, the "Government") issued initial guidance and a request for comments under section 174 as amended by the TCJA in Notice 2023-63 (the "Notice"). The Government noted its intent to issue proposed regulations (the "NPRM") in line with the guidance provided in the Notice. On behalf of Tax Executives, Inc. ("TEI"), we are pleased to provide the following comments on section 174 and the Notice to supplement our original comments submitted July 24, 2024.

[1] Pub. L. 115-97.

[2] Unless otherwise stated, all "section" references herein are to the Internal Revenue Code of 1986, as amended (the "Code") and all "§" references are to the Treasury regulations promulgated thereunder.

About TEI

TEI was founded in 1944 to serve the needs of business tax professionals.[3] Today, the organization has 56 chapters in North and South America, Europe, and Asia. As the preeminent association of in-house tax professionals worldwide, TEI has a significant interest in promoting sound tax policy, as well as the fair and efficient administration of the tax laws, at all levels of government. Our nearly 6,000 individual members represent over 2,900 of the leading companies around the world.

TEI is dedicated to the development of sound tax policy, compliance with and uniform enforcement of tax laws, and minimization of administration and compliance costs to the benefit of both government and taxpayers. These goals can be attained only through the members' voluntary actions and their adherence to the highest standards of professional competence and integrity. TEI is committed to fostering a tax system that works — one that is administrable and with which taxpayers can comply in a cost-efficient manner. The diversity, professional training, and global viewpoints of our members enable TEI to bring a balanced and practical perspective to section 174.

Overview of TEI Supplemental Comments

TEI appreciates the opportunity to provide these supplemental comments on section 174 and the Notice. While our initial comments focused on issues pertaining to computer software development under section 174, the supplemental comments and recommendations herein address issues under section 174 more broadly, including timing issues with respect to wage SREs, the appropriate nexus for indirect costs to be considered SREs, and a reasonable analytical framework under section 174. In this regard, we recommend the Government address the following in the forthcoming NPRM as summarized below:

1. We suggest that the NPRM maintain symmetry, to the extent feasible, between section 41 and section 174.
2. We recommend the general rule for computer software distinguishing "routine maintenance" from "development" focus on a taxpayer's specific facts and circumstances.
3. We propose that the NPRM include an example that demonstrates the appropriate analysis for projects that return to development after entering production.
4. We advise that the Government clarify in the NPRM that cost recovery allowances on equipment and facilities that are not actually used in support of SRE activities do not have sufficient nexus to require capitalization as indirect SREs under section 174.
5. We recommend the NPRM include a simplifying convention whereby a taxpayer may elect to take costs into account under section 174 in the year in which such costs are paid or

[3] TEI is organized under the not-for-profit corporation law of the State of New York. TEI is exempt from U.S. federal income tax under section 501(c)(6) of the Code.

incurred, regardless of the year to which the costs relate.

6. We propose that the Government clarify in the NPRM that the same principles applicable to general SRE activities apply also to artificial intelligence ("AI") and machine learning initiatives.
7. We suggest that the Government provide a safe harbor in the NPRM under which taxpayers may elect to capitalize routine maintenance.
8. We urge that the Government allow flexibility with respect to how a taxpayer accounts for book-tax differences for purposes of section 174.

In conjunction with these recommendations, we provide illustrative examples in our discussion below for inclusion in the NPRM We believe the adoption of these recommendations together with examples will provide much-needed clarity, offer efficiencies to both taxpayers and the Government, and promote consistent treatment with respect to issues that are likely to arise in connection with the application of section 174.

Complete TEI Supplemental Comments

1. We suggest that the Government provide symmetry, to the extent feasible, between section 41 and section 174 in the NPRM.

Many taxpayers that have research subject to section 174 are also eligible for the research credits under section 41. Consequently, both the Service and taxpayers will benefit to the extent that these provisions operate harmoniously. For this reason, we suggest that the NPRM strive to maintain symmetry between sections 41 and 174 to the extent possible, particularly with respect to how the unit of account is defined under section 174 and determining the scope of software development costs. Symmetry between the two provisions, and particularly the criteria for complying with each, would streamline both compliance and enforcement efforts because section 174 costs are taken into account for purposes of determining the credit allowed under section 41.[4] Amounts identified under section 41 are a subset of section 174 costs, and providing a complementary framework for capturing section 174 costs would ease both the administrative burden of compliance as well as the IRS examination efforts.

This symmetry would be particularly beneficial with respect to software development costs, for which companies may not yet have tracking systems in place because prior to the effective date of the TCJA amendments to section 174, virtually all taxpayers deducted software development costs under Revenue Procedure 2000-50 or section 174(a) and no separate project-level tracking under these provisions was expected by the IRS. For example, many companies do not have systems in place to provide for time tracking of software developers' activities, as this detailed tracking is not required under section 41 or for financial accounting purposes (e.g., under GAAP). Accordingly, permitting similar methods of determining capitalizable wages under

[4] *See, e.g.*, I.R.C. § 41(d)(1)(A) (providing that qualified research within the meaning of section 41 includes only research "with respect to which expenditures may be treated as specified research or experimental expenditures under section 174").

section 174 as are used for purposes of section 41, including statistical sampling permitted under Revenue Procedure 2011-42, 2011-37 I.R.B. 318, would facilitate compliance for taxpayers.

Further, providing flexibility, for example, to allow taxpayers to define the unit of account for section 174 purposes consistent with how business components are determined for purposes of section 41 would allow taxpayers to use the same tracking systems to determine costs to be taken into account under each of these provisions. We do not expect this flexibility would provide any tax benefit. Rather, it would assist both large and small taxpayers, with the administrative burden associated with tracking costs. It would also permit taxpayers to expand existing systems rather than creating or purchasing a new costing system. Such symmetry would reduce taxpayer compliance costs while also facilitating IRS examination efforts.

2. We recommend that the general rule for distinguishing "routine maintenance" from "development" focus on a taxpayer's facts and circumstances.

Nearly all industries engage in software development, and software development can vary significantly. For example, software development project size and spend for a manufacturer as compared to a healthcare service provider as compared to a technology company will look vastly different. Due to the varying fact patterns and costs associated with software development across, and even within, industries, the general rule for determining activities that constitute "routine maintenance" from those that constitute "development" should focus on an analysis that takes into account a taxpayer's facts and circumstances. Key factors in the analysis should include whether the activities are undertaken to eliminate technical uncertainty.

While the Government may be inclined to provide an objective percentage-based test, whether based on hours or costs spent, as a simplifying convention, any such test should apply on an elective, rather than mandated, basis. For example, a blanket simplifying convention whereby a particular initiative is treated as "routine maintenance" if its total costs make up 30% or less of the total project's cost could be problematic in the software development context. Software development is an iterative process that often builds upon existing code. Accordingly, an initiative within a development project could cost less than 30% of the total project costs, but nonetheless still be aimed at resolving technical uncertainty. A blanket rule that scopes such an initiative outside the purview of section 174 could unintentionally reduce a taxpayer's section 41 credit with respect to costs that would otherwise qualify. Accordingly, a general facts and circumstances approach would be more appropriate to distinguish routine maintenance from development activities.

3. We propose that the NPRM include the following examples, which demonstrate the appropriate analysis for projects that return to development after entering production.

When an activity takes place may inform the analysis as to whether the activity constitutes development or is more appropriately characterized as routine maintenance. Specifically, activities are more likely to constitute development if they occur prior to a product entering production, and are more likely to constitute routine maintenance if they occur after a product has entered production. However, this factor is not determinative, as products often return to

development after they have entered production. We recommend the Government include examples in the NPRM to highlight these timing issues that may arise in attempts to delineate routine maintenance from development. Our initial comments included Example 8, which demonstrated the proper analysis. The following additional examples should be considered for inclusion in the NPRM:

EXAMPLE 1. Company A is a communications service provider. Company A's engineers developed a security operations platform ("SOP") for Company A's business. The SOP entered production in Year 1. In Year 3, Company A decides to automate the SOP's threat detection program. Company A's engineers research the best way to implement such a feature. Company A pulls the SOP back into development, and the engineers write and test code to automate sorting and triaging detected threats. These activities are part of an iterative process aimed at eliminating technical uncertainty. The costs of the automation feature are equal to 5% of the total SOP project costs to date.

The engineers' research, writing, and testing code are activities that constitute software development because they add a new feature that was not contemplated as part of the original plan for the SOP, and because the activities are part of an iterative process aimed at eliminating technical uncertainty. These activities are development activities despite having occurred after the SOP entered production and despite the comparatively low cost of the feature compared to the entire platform.

EXAMPLE 2. The facts are the same as in Example 1, except that Company A pulls the SOP back into development in Year 2 to fix a software glitch crashing part of the platform that was identified during routine testing. Company A's engineers update the code to patch the identified vulnerability, and then relaunch the SOP. The engineers' activities do not involve an iterative process aimed at eliminating technical uncertainty.

The engineers' activities constitute routine maintenance. The engineers' activities are not SRE activities because they are undertaken to fix a bug identified during routine testing, do not add a new feature or upgrade, and do not involve an iterative process aimed at eliminating technical uncertainty.

4. We advise that the Government clarify in the NPRM that cost recovery allowances on equipment and facilities, which are not actually used in support of SRE activities, do not have sufficient nexus to require capitalization as indirect SREs under section 174.

We recommend the forthcoming NPRM address the treatment of cost recovery allowances on equipment and facilities that are available, but not used, to support SRE activities. A requirement that all cost recovery on facilities, such as office buildings, must be capitalized as indirect SRE costs would not reflect the economic reality of today's hybrid business environment. For example, if a software engineer works as a fully remote employee, cost recovery on an office building is not incidental to the software engineer's activities. We also recommend the NPRM include an example demonstrating the proper allocation of overhead SRE costs in today's hybrid work environment. Like depreciation on office space, it is not

proper to consider overhead costs such as utilities to be indirectly supporting SRE activities that do not occur on-site.

Consequently, the Government should clarify that cost recovery allowances on equipment and facilities, as well as overhead with respect to facilities, which are not actually used in support of SRE activities do not have sufficient nexus to require capitalization as indirect SREs under section 174. Such a rule would be like the exclusion provided in Treas. Reg. section 1.263A-1(e)(3)(iii)(E) for cost recovery allowances on temporarily idle equipment and facilities from the requirement to capitalize cost recovery on equipment and facilities that are properly allocable to section 263A property.

In this regard, we suggest the following examples for inclusion in the NPRM:

EXAMPLE 3. Hybrid work environment. Company B has a hybrid work policy under which employees are required to work in-person Tuesday, Wednesday, and Thursday, but work remotely on Monday and Friday of each week. Because workers are only present in-office three-fifths of the work week, Company B may voluntarily choose to treat only three-fifths of the office building depreciation and other facility-related overhead charges as indirectly supporting activities of Company B's employees.

EXAMPLE 4. Flexible work environment. Company C has a flexible work policy under which employees may choose whether to work in-person or remotely. Company C tracks where its employees physically perform their activities. Based on Company C's data, its engineers spend 20% of their time in-office and the remaining 80% is spent working remotely. Because Company C's engineers spend only 20% of their time in the office, Company B may voluntarily choose to treat only 20% of the office building depreciation and other facility-related overhead as indirectly supporting engineering activities.

5. We recommend that the NPRM include a simplifying convention whereby a taxpayer may elect to take costs into account under section 174 in the year in which such costs are paid or incurred, regardless of the year to which the costs relate.

Companies may often incur costs in one tax year that relate to SRE activities that were performed in a prior tax year. For example, engineer compensation frequently includes bonuses or stock options structured to be paid out over a number of years. Under a bonus payment plan, a company might provide that Employee A will receive $X bonus with respect to work performed in Year 1 if employee still works for the company in Year 3. While the bonus would technically relate to SRE activities performed by Employee A in Year 1, it would not be paid or incurred within the meaning of section 461 until Year 3. Requiring taxpayers to go back and adjust prior year SREs and amortization to account for these common compensation structures would be unduly complex. To avoid this administratively burdensome result, we recommend the Government include a simplifying convention in the NPRM that provides an election whereby taxpayers may include employee compensation in SREs in the year in which the employee compensation is paid or incurred within the meaning of section 461. Such an election should be a method of accounting within the meaning of section 446.

We further recommend the NPRM include the following example to illustrate this simplifying convention:

EXAMPLE 5. Engineer A, an employee of Company D, is awarded a $10,000 bonus with respect to Engineer A's work performed in Year 1. Under Company D's bonus policy, Engineer A will receive a $10,000 bonus for work performed in Year 1 in Year 2. In Year 2, Engineer A receives the $10,000 bonus. Company D elected to include employee compensation in SREs in the tax year in which such employee compensation is paid or incurred. Accordingly, while the $10,000 relates back to Engineer A's activities performed in Year 1, Company D may include the allocable portion of Engineer A's $10,000 bonus in its SREs for Year 2. For example, if 70% of Engineer's Year 1 work qualified for SREs, $7,000 of the $10,000 would be included in Year 2 SREs. Company D's election is a method of accounting within the meaning of section 446. Accordingly, Company D must include all allocable employee compensation in SREs in the year in which such employee compensation is paid or incurred unless and until Company D receives consent to change its method of accounting.

EXAMPLE 6. Engineer A also receives a Long-Term Incentive (LTI) award at the end of Year 1 that vests in Year 4 if Engineer A is still with Company D at that time. The award will be $25,000 and paid out in Year 4. Whether Company D elects to include employee compensation in SREs in the tax year in which such employee compensation is paid or incurred or in the year it is earned, Engineer A's LTI award will not generate SREs or be required to be capitalized under Section 174. The LTI award is not closely associated enough to the work performed by Engineer A that generated SREs in Year 1 to be included as SREs in Year 1 or Year 4. Instead, the LTI award is more appropriately characterized as an incentive to remain with Company D that is not directly attributable or incidental to the work completed by Engineer A in Year 1.

6. We propose that the Government clarify in the NPRM that the same principles applicable to general SRE activities also apply to AI and machine learning initiatives.

AI and machine learning efforts are difficult to categorize as between software development or more traditional research and experimental activities. AI and machine learning efforts involve more modeling than writing code, but the distinction can sometimes be murky. However, for purposes of the analysis under section 174, the distinction should not matter. We recommend the Government clarify in the NPRM that the same principles that apply to general research and development activities should apply to AI and machine learning initiatives.

For example, individuals involved in creating AI or machine learning models engage in some activities that are technical in nature and intended to eliminate uncertainty. To the extent the individual's efforts fall under that description, based on a facts and circumstances analysis, those activities should be considered SRE activities under section 174, regardless of whether they constitute "software development."

Specifically, we recommend the NPRM provide an analytical framework under which a taxpayer first determines whether activities, which may include software development or more

traditional research and development activities, satisfy the general definition of "research or experimental expenditures which are paid or incurred . . . in connection with the taxpayer's trade or business" under section 174(b). To the extent costs do not constitute SREs under section 174(b), taxpayers should then consider whether costs constitute software development SREs within the meaning of section 174(c)(3). This framework would eliminate the need to differentiate between general SREs that constitute "software development" and those that do not, which could be an involved and complicated analysis, particularly in the AI and machine learning context, which should not impact the result under section 174.

To clarify the treatment of AI and machine learning initiatives, and to demonstrate the proper analytical framework, we recommend the Government include the following examples in the NPRM under section 174:

EXAMPLE 7. Company E, a healthcare service provider, develops a program ("Program") that interacts with patients managing chronic conditions. To develop the Program, engineers researched, wrote, and tested code designed to receive user inputs and integrate machine learning to process data and suggest outputs. Employees separately selected relevant data and wrote the machine learning model that was integrated into the Program code. The engineers' activities, as well as the data selection and model writing, involved iterative processes aimed at eliminating uncertainty that is technical in nature. Accordingly, the engineers' activities, data selection, and model writing are SRE activities that are required to be capitalized under section 174.

EXAMPLE 8. Company F, a retailer, has a mobile application that processes customer purchases, returns, and other communications. In Year 1, Company F decides to implement a new feature in its mobile application that uses AI to automate routing of customer requests to the appropriate customer service representative. This implementation involves an iterative process aimed at eliminating technical uncertainty. Contemporaneous with the AI feature implementation, Company F's engineers fix a processing error in the mobile application that has been reported by users. This fix does not involve an iterative process or eliminate technical uncertainty.

The efforts involved with implementing AI automation in the mobile application are SRE activities the costs of which are required to be capitalized under section 174 because the activities involve an iterative process aimed at eliminating technical uncertainty. The costs of fixing the processing error are not SREs because the activities do not involve an iterative process or eliminate technical uncertainty. Additionally, the activities are routine maintenance, and do not constitute software development, because the fix does not add new functionality or upgrade to the mobile application.

7. We suggest that the government provide a safe harbor in the NPRM under which taxpayers may elect to capitalize routine maintenance.

The costs of implementing new tracking systems associated with section 174 are already immense, and small taxpayers in particular would appreciate simplifying conventions that ease

the administrative costs of compliance. We recommend the Government provide a safe harbor under which taxpayers may elect to capitalize routine maintenance costs as SREs. The safe harbor should be an annual election that applies to all routine maintenance costs paid or incurred in the election year. Such an election would save taxpayers time and money associated with delineating software development activities from routine maintenance, as well as the potential time and cost associated with IRS examination of these determinations which amount merely to a timing difference. Accordingly, the safe harbor election would reduce costs and simplify compliance, particularly for taxpayers with less sophisticated tax departments.

We recommend the Government include the following example, illustrating the safe harbor, as part of the NPRM:

EXAMPLE 9. Company G manufactures vehicles that have integrated software. Company G's engineers regularly engage in both routine maintenance and development activities concerning the integrated software. For example, in Year 1, Company G's engineers developed new safety features, including anti-collision functionality. The development of new safety features involved an iterative process aimed at eliminating technical uncertainty. In Year 1, Company G's engineers also pushed through an update to fix a glitch in its streaming capabilities. The engineers' activities related to fixing the streaming glitch did not involve an iterative process or eliminate uncertainty. In Year 1, Company G elected the safe harbor to capitalize all routine maintenance as SREs.

The engineers' activities related to developing new safety features are SREs required to be capitalized under section 174 because they are intended to add a new feature not contemplated as part of the original software design, and because the activities involved an iterative process meant to eliminate uncertainty. The engineers' activities related to fixing the streaming glitch are routine maintenance and are not SREs. However, because Company G elected the safe harbor for Year 1, Company G must capitalize the costs related to the streaming glitch fix as SREs in Year 1.

8. We urge the Government to allow flexibility with respect to how a taxpayer takes into account book-tax differences for purposes of section 174.

Taxpayers should have flexibility to take book-tax differences into account for purposes of section 174 at the global cost pool level (i.e., all costs for which amortization begins in that year) or at the smaller unit of account level (for example, consistent with the taxpayer's business component determination under section 41), regardless of whether a taxpayer accounts for section 174 costs as a global cost pool or as separate units of account. This flexibility should not produce a tax benefit for taxpayers but would allow taxpayers the option to work with their systems in place, which vary widely among taxpayers.

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TEI appreciates the opportunity to comment on section 174 and Notice 2023-63. TEI's comments were prepared by members of its IRS Administrative Affairs Committee and Federal

Tax Committee. Should you have any questions regarding TEI's comments, please do not hesitate to contact IRS Administrative Affairs Committee Chair Brian Kaufman at brian.kaufman@capitalone.com, Federal Tax Committee Chair Betty Mak at Betty.Mak@Maxar.com, or TEI tax counsel Kelly Madigan at kmadigan@tei.org.

Respectfully submitted,

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