

Office of Chief Counsel  
Internal Revenue Service  
**Memorandum**

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CC:LB&I: :BDFerraro  
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from: Barbara D. Ferraro

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Subject: – Notice of Proposed Adjustment (NOPA) Review

Tax Years: to

This advice may not be used or cited as precedent.

UILC: 174.00-00

174.06-00

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The Internal Revenue Service (I.R.S., or the Service) exam team (Exam Team) provided the Office of Chief Counsel (Counsel) with a draft NOPA for its review. The NOPA disallows certain Internal Revenue Code (I.R.C.) § 174 expenditures claimed by the and its subsidiaries ( , or the Taxpayer), on its consolidated Forms 1120, United States Corporation Income Tax Return (Tax Return), for the Plant, a power plant located in (Plant) and owned by its wholly owned subsidiary, ( ). Counsel has coordinated with the National Office Branch Six, Pass-through and Special Industries in its review of these issues and the issuance of this memorandum. The following summarizes our advice with respect to the legal position set forth in the NOPA.

**ISSUES:**

1. Can amend its Tax Returns for open years to claim costs that on the originally filed Tax Returns for those years, as I.R.C. § 174 (a) expenditures?
2. Are all Plant costs I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures because the Plant qualifies as a Treasury Regulation § 1.174-2(a)(4) pilot model?

3. Are all of the Plant subcomponents' costs I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures because the subcomponents qualify as Treasury Regulation § 1.174-2(a)(4) pilot models?
4. Which Plant costs are I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures?

### CONCLUSIONS:

1. Yes, \_\_\_\_\_ may amend its Tax Returns for open years \_\_\_\_\_ to claim costs that \_\_\_\_\_ on the originally filed Tax Returns for those years, as I.R.C. § 174(a) expenditures. However, these costs will only be tax deductible under I.R.C. § 174(a) and Treasury Regulation § 1.174-3(a) if they qualify as research or experimental expenditures pursuant to I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1).
2. No, all Plant costs are not I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures because the Plant does not qualify as a Treasury Regulation § 1.174-2(a)(4) pilot model.
3. No, all of the Plant subcomponents' costs are not I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures because the subcomponents do not qualify as Treasury Regulation § 1.174-2(a)(4) pilot models.
4. The Plant's, its subcomponents' and components' engineering, design costs and integration costs are I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures because those costs were incurred to re-engineer and re-design the Plant's, its subcomponents' and components' first of a kind equipment.

### FACTS:

\_\_\_\_\_, taxpayer is a \_\_\_\_\_ electrical power utility company that provides electrical power generation, electrical power transmission, as well as, retail and wholesale power distribution to its consumers. It's located in the United States \_\_\_\_\_ and supplies its generated electrical power to over \_\_\_\_\_ customers within a \_\_\_\_\_ service territory that includes \_\_\_\_\_, \_\_\_\_\_, and the region of \_\_\_\_\_. Its regulated electric power subsidiaries are \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

\_\_\_\_\_ has claimed, via its wholly owned subsidiary \_\_\_\_\_, an aggregate \$ \_\_\_\_\_ in Schedule M-3 I.R.C. § 174 research and expenditure (R&E) deductions (R&E Deductions) in its \_\_\_\_\_ Tax Returns with respect to property, which in large part, is subject to depreciation. The Taxpayer \_\_\_\_\_ . For tax years \_\_\_\_\_, \_\_\_\_\_ had originally \_\_\_\_\_ . Neither it, nor \_\_\_\_\_ has historically \_\_\_\_\_ .

The Taxpayer has relied on the 2014 issued § 1.174, et seq. Treasury Regulations (New Regulations), which clarify that property that is subject to depreciation is not precluded from being subject to I.R.C. § 174, so long as the expenditure at issue otherwise qualifies as an I.R.C. § 174 expenditure. The

that reported are: (1) \$ for the December 31, tax year on an amended Tax Return; (2) \$ for the December 31, tax year on an amended Tax Return; (3) \$ for the December 31, tax year on an amended Tax Return; (4) \$ for the December 31, tax year on an amended Tax Return; (5) \$ for the December 31, tax year on an amended Tax Return; (6) \$ for the year December 31, tax year, \$ on an originally filed Tax Return and an additional \$ on an amended Tax Return; and (7) \$ for the December 31, tax year on an originally filed Tax Return. are: (1) \$ for the December 31, tax year; (2) \$ for the December 31, tax year; (3) \$ for the December 31, tax year; (4) \$ for the December 31, tax year; (5) \$ for the December 31, tax year; (6) \$ for the year December 31, tax year; and (7) \$ for the December 31, tax year, totaling \$ for all tax years at issue.

had filed a statement in its Tax Return

for the tax years. However, the Taxpayer via

. Relying on the New Regulations, the Taxpayer included a protective Form 3115 Application for Change in Accounting Method (Protective Form, or Form) in its Tax Return via

The Protective Form was filed pursuant to Revenue Procedure 2011-14, 2011-1 C.B. 330, which was in part modified by Revenue Procedure 2014-17 2014-1 C.B. 661, but Appendix 7.01,

. As described in the Form,

. The taxpayer

further proposed in the Form that

*The Plant*

The Plant is an ( ), that converts , . The is the Plant's primary fuel and delivered to it by a dedicated pipeline, is its secondary fuel. At full capacity, it converts in excess of of per hour into .

It has two with associated support facilities. The ( ), and is used to power the two convert , which from the that produce electricity. Hot flow to the . The produce from that powers the , which generate approximately megawatts of electricity.

The Plant's three primary systems are the , the , which cleans the before it flows to the , by removing , and ; and the .

has taken the position that the Plant was built to evaluate and resolve a overall design uncertainty. In connection therewith, it highlights that the Plant's three sub-systems have first-of-a-kind (FOAK) equipment, including the and system, the , the system, as well as the system. These sub-systems, which are part of the system's ( ) technology, had however been previously developed, tested and validated by , the ( ) and engineering firm ( ), at the Plant's prototype in , (Prototype). Notwithstanding its position, the Taxpayer has assigned no, low, or moderate incremental technical risk factors to these sub-systems.

### *Credits*

received . Per the application for , the Plant is in large part comprised of proven and commercially available equipment and technology. The Taxpayer further states therein that it had gained knowledge, as well as engineering, design, and construction expertise and capabilities, through its work at the Prototype.

has however

because

*Initiative*

*Technology Risk Assessment of the Plant*

The Taxpayer's engineering team (Team) concluded in an internal report (Report) that

Team further reasoned that . The  
and the , the

To so conclude, the Team analyzed

, and industries and therefore, only presented  
comparable technology risks to such of any other .  
Specifically,

, and

Further, the Report did not ,

a result thereof, the Team noted that

. As

Per the Report, : (1)  
 subcomponent; (2) subcomponent; (3)  
 subcomponent; (4) subcomponent; (5)  
 subcomponent (6) subcomponent; (7)  
 subcomponent; (8)  
 subcomponent; (9) subcomponent; (10)  
 subcomponent; (11) subcomponent; (12) a  
 subcomponent; (13) subcomponent; (14)  
 subcomponent; (15)  
 subcomponent; and (16) subcomponent.

*The Taxpayer's Position*

Primary Position

primary position is that

Taxpayer advocates that

. In furtherance of its position, the

because per application, the Plant is principally comprised of proven and commercially available equipment and technology. The Taxpayer further specifies therein, that

. This position fails however,

supported by Report, where its Team concluded that

. These statements are

Alternative Position

alternative position

This position equally fails because

secondly did not identify any system, or individual Plant component, that imposed high incremental risks as compared to those of power plants. As such, . It

### LAW AND ANALYSIS:

1. Issue: Can \_\_\_\_\_ amend its Tax Returns for open years \_\_\_\_\_ to claim costs as I.R.C. § 174(a) expenditures that \_\_\_\_\_ on the originally filed Tax Returns for those years?

Conclusion: \_\_\_\_\_ may amend its Tax Returns for open years \_\_\_\_\_ to claim costs as I.R.C. § 174(a) expenditures, that \_\_\_\_\_ on the originally filed Tax Returns for those years. However, these costs will only be tax deductible under I.R.C. § 174(a) and Treasury Regulation § 1.174-3(a) if they qualify as research or experimental expenditures pursuant to I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1).

#### Discussion

A taxpayer may deduct current research or experimental expenditures that are not chargeable to the capital account, which are paid or incurred by him during the taxable year in connection with his trade or business. I.R.C. § 174 (a)(1), Treas. Reg. § 1.174-3. This method may be adopted without the Secretary of the Treasury, or his delegate's (Secretary) consent, for the first taxable year in which these expenditures are paid or incurred. I.R.C. § 174(a)(2)(A), Treas. Reg. § 1.174-3(a) and (b). However, a taxpayer may not adopt the expense method for a particular project and adopt a different method of treating the balance of the expenditures for the same taxable year relating to the same project. Treas. Reg. § 1.174-3(a). The method applies to all such expenditures and to the taxable income computation for the year of the adoption, as well as all subsequent years. Id. A change of this method, once adopted, requires the Secretary's approval and authorization of all or part of the expenditures. I.R.C. § 174 (a)(3), Treas. Reg. § 1.174-3(a) and (b).

Research or experimentation expenditures resulting in a depreciable property end product to be used in the taxpayer's trade or business may, subject to the limitations of Treasury Regulation § 1.174-2(b)(4), be allowable as an I.R.C. § 174(a) current expense deduction. Treas. Reg. § 1.174-2(b)(2). This deduction is limited to amounts expended for I.R.C. § 174 and Treasury Regulation § 1.174-2(a) research or experimentation. Treas. Reg. § 1.174-2(b)(4). This provision applies to taxable years ending on or after July 21, 2014 and to taxable years for which the limitations for assessment of tax has not expired. Treas. Reg. § 1.174-2(d).

Revenue Ruling 58-74, 1958-1 C.B.148 (Ruling) examined the current expense

method's application and concluded that a taxpayer, which had adopted the I.R.C. § 174(a) expense method, but had failed to include certain research or experimental expenses in prior taxable years, should file amended returns for those years, if those years are still open, to claim the omitted research or experimental expenses.

The Ruling citing Treasury Regulation § 1.174-3(a), specifically states that the adopted expense method for R&E expenditures is binding and inclusive for all such expenditures for the particular project or projects involved, for the taxable year of adoption and for all subsequent taxable years, until a change to another method is properly effected.

in its Tax Return and pursuant to it, tax years. Per the Protective Form, the Taxpayer also

further proposed in the Form, that

By filing amended Tax Returns for open tax years, the Taxpayer will be

. See Treas. Reg. § 1.174-2(d) and Rev. Rul. 58-74. Therefore, may amend its Tax Returns for open years to to claim costs as I.R.C. § 174(a) expenditures, that had been on the originally filed Tax Returns for those years. However, these costs will only be tax deductible under I.R.C. § 174(a) and Treasury Regulation § 1.174-3(a) if they qualify as research or experimental expenditures pursuant to I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1).

2. Issue: Are all Plant costs I.R.C. § 174 and Treasury Regulation and § 1.174-2(a)(1) expenditures because the Plant qualifies as a Treasury Regulation § 1.174-2(a)(4) Pilot model?

Conclusion: No, all Plant costs are not I.R.C. § 174 Treasury Regulation and § 1.174-2(a)(1) expenditures because the Plant does not qualify as a Treasury Regulation § 1.174-2(a)(4) Pilot model.

### Discussion

Research or experimental expenditures are expenditures that are incurred in

connection with the taxpayer's trade or business, in the experimental or laboratory sense, including all such incident to the development or improvement of a product. Expenditures representing research and development costs in the experimental or laboratory sense are such that are incurred for activities intended to discover information that would eliminate the uncertainty of developing or improving the product. Uncertainty exists if the taxpayer is unable to develop or improve the product, or its appropriate design, based on the available information. Whether expenditures qualify depends on the nature of the activity to which the expenditures relate, not the nature of the product developed or improved or the product's technological advancement or improvement. Expenditures incurred after production begins may be considered, but only if such are expended before the product's developmental or improvement uncertainty is eliminated. However, the product's ultimate success, failure, sale, or use is irrelevant in determining its I.R.C. § 174 eligibility (collectively R&E Expenditures). Treas. Reg. § 1.174-2(a)(1).

Except as provided by Treasury Regulation § 1.174-2(a)(5), expenditures paid or incurred in the product's manufacture after the elimination of its developmental or improvement uncertainty are I.R.C. § 174 ineligible. Treas. Reg. § 1.174-2(a)(2). Research or experimentation expenditures which result in a depreciable property end product to be used in the taxpayer's trade or business may, subject to the limitations of Treasury Regulation § 1.174-2(b)(4), be allowable as an I.R.C. § 174(a) deduction. Treas. Reg. § 1.174-2(b)(2). These expenditures cannot be amortized pursuant to I.R.C. § 174(b), except to the extent provided by Treasury Regulation § 1.174-4(a)(4). Id. This deduction is limited to I.R.C. § 174 and Treasury Regulation § 1.174-2(a) amounts. Treas. Reg. § 1.174-2(b)(4).

A product in relevant part, is any pilot model, process, formula, invention, technique, patent, or similar property, including such used by the taxpayer in its trade or business (Product). Treas. Reg. § 1.174-2(a)(3). A pilot model is a representation or model of a product, or its fully functional component, to the extent Treasury Regulation § 1.174-2(a)(5) applies, that is produced to evaluate and resolve its uncertainty during its development (Pilot). Treas. Reg. § 1.174-2(a)(4). If Treasury Regulation § 1.174-2(a)(1)'s requirements are not met at the product level, then the expenditures' eligibility is examined at the component or subcomponent level. Treas. Reg. § 1.174-2(a)(5). The product's developmental or improvement uncertainty is evaluated at each subcomponent independently and its existence at one subcomponent does not necessarily transfer to other components, or the entire product. Id.

The Plant is depreciable property that will be used in \_\_\_\_\_ business and therefore R&E Expenditures incurred, in connection therewith, subject to the limitations of Treasury Regulation 1.174-2(b)(4), may be allowable under I.R.C. § 174. All of these incurred R&E Expenditures are I.R.C. § 174 eligible, if the Plant is deemed a Pilot model pursuant to Treasury Regulation § 1.174-2(a)(3) and (4). It would qualify as a Pilot model if it was a representation or model of a product that was produced to evaluate and resolve uncertainty during its development. Treas. Reg. § 1.174-2(a)(4).



3. Issue: Are all of the Plant subcomponents' costs I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures because the subcomponents qualify as Treasury Regulation § 1.174-2(a)(4) Pilot models?

Conclusion: No, all of the Plant subcomponents' costs are not I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures because the subcomponents do not qualify as Treasury Regulation § 1.174-2(a)(4) Pilot models.

The Taxpayer's Team concluded that

. It noted in its Report that

The Report

and . It

Plant's

. The

, and

. Additionally, the Team reasoned

Lastly, the Report did not

. As such, the Team concluded

As provided by the Report, the Plant is principally comprised of the following: (1) subcomponent; (2) subcomponent; (3) subcomponent; (4) subcomponent; (5) subcomponent; (6) subcomponent; (7) subcomponent; (8) subcomponent; (9) subcomponent; (10) subcomponent; (11) subcomponent; (12) subcomponent; (13) subcomponent; (14) a subcomponent; (15) subcomponent; and (16) subcomponent.

The Plant is not a Treasury Regulation § 1.174-2(a)(4) Pilot model and does not satisfy Treasury Regulation § 1.174-2(a)(1)'s requirements. Therefore, each Plant subcomponent is evaluated to determine if it qualifies as a Treasury Regulation § 1.174-

2(a)(4) Pilot model. See Treas. Reg. § 1.174-2(a)(5). Treasury Regulation § 1.174-2(a)(5) is intended to avail I.R.C. § 174 eligibility where a basic design specification of the Product may be established, but uncertainty exists regarding the Product's certain components, even if uncertainty arises after the Product's manufacture has begun.

This rule's application is demonstrated in Treasury Regulation examples six (6) and eight (8). Treas. Reg. § 1.174-2(a)(11). In example six, costs expended for engineering labor and materials incurred to create a new Pilot model component for a machine were incurred in the experimental and the laboratory sense and therefore were I.R.C. § 174 expenditures because the component eliminated developmental uncertainty. However, production costs that had been incurred after the taxpayer had completed its research or experimentation were not I.R.C. § 174 eligible.

In example eight, costs incurred to produce and install a component were I.R.C. § 174 research and developmental expenditures, in the experimental or laboratory sense. The taxpayer produced the component to resolve uncertainty about its appropriate design and therefore such qualified as a Treasury Regulation § 1.174-2(a)(4) Pilot model. Conversely, costs expended duplicating a previously manufactured engine onto which the Pilot model component was installed were not so deductible.

In applying Treasury Regulation § 1.174-2(a)(4) and (a)(5) to the Taxpayer's facts, the Plant's subcomponents cannot be Treasury Regulation § 1.174-2(a)(4) Pilot models because assigned them no, low or moderate technology risks that are comparable to those attributed in any other power plant projects. Accordingly, each subcomponent in its entirety could not have been designed or created to resolve uncertainty in the laboratory sense. Secondly, the Plant contains proven and commercially available equipment and technology, which therefore could not have been produced to evaluate and resolve uncertainty during its development. As such, the Plant's subcomponents cannot be deemed Pilot models and, accordingly, the costs that the Taxpayer incurred in connection with the Plant and its subcomponents should be examined individually to determine I.R.C. § 174 eligibility.

4. Issue: Which Plant costs are I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures?

Conclusion: The Plant's, its subcomponents' and components' engineering design and integration costs are I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures because those costs were incurred to re-engineer and re-design the Plant's, its subcomponents' and components' FOAK equipment.

The Plant includes FOAK equipment, such as, the system, the , the system and the system, which the Taxpayer re-designed, re-engineered, integrated and incurred certain

I.R.C. § 174 expenditures. Research or experimental expenditures are expenditures that are incurred in connection with the taxpayer's trade or business, in the experimental or laboratory sense, including all such incident to the development or improvement of a product. Treas. Reg. § 1.174-2(a)(1). Costs expended for activities intended to discover information that would eliminate the uncertainty of developing or improving the product, are incurred in the experimental or laboratory sense. Id. Uncertainty exists if the taxpayer is unable to develop or improve the product, or its appropriate design, based on the available information. Id. Expenditures incurred after production begins may be evaluated, but only if such are expended before the product's developmental or improvement uncertainty is eliminated. Id. Costs paid or incurred in the product's production, after the elimination of its developmental or improvement uncertainty, are non I.R.C. § 174 eligible. Treas. Reg. § 1.174-2(a)(2).

is an electrical power utility company in the United States' region. Its products and services include electrical power generation, electrical power transmission, as well as retail and wholesale power distribution, which it supplies to its customers within service territory. The Taxpayer incurred costs in the experimental or laboratory sense and in connection with its trade or business, for the design, engineering and integration of the FOAK equipment, that were paid for activities, intended to discover information that would eliminate the uncertainty of developing it. confronted technical uncertainty because it was unable to develop or improve the Plant's, its subcomponents' and components' FOAK equipment, or its appropriate design, based on the available information. Secondly, operating the technically proven equipment with the FOAK equipment, while the which has and using it as the Plant's , will be novel. Accordingly, the Taxpayer's design, engineering and integration costs for the Plant, as well as its subcomponents and components qualify as I.R.C. § 174 and Treasury Regulation § 1.174-2(a)(1) expenditures because those costs were incurred to re-engineer and re-design the Plant's, its subcomponents' and components' FOAK equipment. The Plant's FOAK equipment, which although was produced, tested and validated at a smaller scale at the Prototype level, did give rise to technical uncertainties when re-designed, re-engineered and integrated at the Plant. For example, faced technical uncertainties when re-designing and re-engineering the Plant's FOAK in: (1)

; (2)

the Prototype's ; (3) per square inch (PSI) the Prototype's PSI; (4)

The Taxpayer encountered further technical uncertainties in re-designing and re-engineering the Plant's: (1)

; (2)

; (3)

also confronted integration technical uncertainties in integrating: (1) the FOAK cohesively function with the Plant's air

(2) the FOAK

; (3) the Plant's

did not conversely successfully demonstrate that the Plant, or its primary sub-components, or components are Treasury Regulation § 1.174-2(a)(4) Pilot models, nor did it substantiate that the integration of this FOAK equipment produced such technical uncertainties as to render the Plant, or its subcomponents or components, as Treasury Regulation § 1.174-2(a)(4) Pilot models. Treasury Regulation § 1.174-2(a)(1) expenditures generally include testing costs, other than quality control testing excluded under Treasury Regulation § 1.174-2(a)(7), performed to eliminate an experimental component's uncertainty and costs to resolve the uncertainty of integrating it with a nonexperimental product, when Treasury Regulation § 1.174-2(a)(1) is not satisfied for the product as a whole. The application of this rule allows consideration whether production, and testing costs that were incurred to resolve the product's design and integration uncertainty, were expended in the laboratory sense and would therefore be I.R.C. § 174 eligible. The Taxpayer advocates that its balance of the Plant costs are I.R.C. § 174 eligible because they are analogous to I.R.C. § 174 eligible production costs. The Taxpayer did not however establish that its balance of the Plant and production costs, were incurred to resolve the Plant's, or its subcomponents', or components' design and integration uncertainty. Therefore, all other expenditures that

incurred in connection with the Plant, its subcomponents and components, including its balance of the Plant costs and, such costs paid or incurred in production and testing, after the elimination of developmental or improvement uncertainty, are I.R.C. § 174 ineligible.

If you have any questions regarding this review, please contact Barbara Ferraro at 470-639-2192.

Sincerely,

Barbara D. Ferraro  
Senior Attorney  
Large Business & International