DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[TD 10009]

RIN 1545–BQ54

Advanced Manufacturing Investment Credit Rules Under Sections 48D and 50

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Final rule.

SUMMARY: This document contains final regulations to implement the advanced manufacturing investment credit established by the CHIPS Act of 2022 to incentivize the manufacture of semiconductors and semiconductor manufacturing equipment within the United States. The final regulations adopt with certain modifications rules proposed in the first of two notices of proposed rulemaking to implement the credit, other than proposed rules regarding the elective payment election that were addressed in the final rule adopted in connection with the second notice of proposed rulemaking. The final regulations provide the eligibility requirements for the credit, and a special 10-year credit recapture rule that applies if there is a significant transaction involving the material expansion of semiconductor manufacturing capacity in a foreign country of concern. The final regulations affect taxpayers that claim the advanced manufacturing investment credit.

DATES:

Effective date: These regulations are effective on December 23, 2024.

Applicability dates: For dates of applicability see §§ 1.48D–1(d), 1.48D–2(q), 1.48D–3(h), 1.48D–4(d), 1.48D–5(f) and 1.50–2(e).

FOR FURTHER INFORMATION CONTACT: Concerning these final regulations, contact Lani Sinfield of the Office of Associate Chief Counsel (Passthroughs and Special Industries), (202) 317–4137 (not a toll-free number).

SUPPLEMENTARY INFORMATION:

Authority

This document amends the Income Tax Regulations (26 CFR part 1) by adding regulations authorized to be issued by the Secretary of the Treasury or her delegate (Secretary) under sections 50(a) and 7805(a) of the Internal Revenue Code (Code) regarding the application of sections 48D and 50(a)(3) and (a)(6)(D) and (E) of the Code (final regulations).

Section 50(a)(3)(C) provides an express delegation of authority to the Secretary to provide guidance relating to the recapture requirement in section 50(a)(3) for the advanced manufacturing investment credit, stating, ''The Secretary shall issue such regulations or other guidance as the Secretary determines necessary or appropriate to carry out the purposes of this paragraph, including regulations or other guidance which provide for requirements for recordkeeping or information reporting for purposes of administering the requirements of this paragraph.''

In addition, section 50(a)(6)(D)(i) provides an express delegation of authority to the Secretary to determine, in coordination with the Secretary of Commerce and the Secretary of Defense, significant transactions, stating, ''[t]he term 'applicable transaction' means, with respect to any applicable taxpayer, any significant transaction (as determined by the Secretary, in coordination with the Secretary of Commerce and the Secretary of Defense) involving the material expansion of semiconductor manufacturing capacity of such applicable taxpayer in the People's Republic of China or a foreign country of concern (as defined in section 9901(7) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021).''

The final regulations are also issued under the express delegation of authority under section 7805(a), which provides that ''[t]he Secretary shall prescribe all needful rules and regulations for the enforcement of [the Code], including all rules and regulations as may be necessary by reason of any alteration of law in relation to internal revenue.''

Background

I. Overview

Section 107(a) of the CHIPS Act of 2022 (CHIPS Act), enacted as Division A of Public Law 117–167, 136 Stat. 1366, 1393 (August 9, 2022), added section 48D to the Code to establish the advanced manufacturing investment credit (section 48D credit) as an investment credit for purposes of section 46 of the Code, which is a current year general business credit under section 38 of the Code.

Section 48D(a) provides that the section 48D credit is an amount equal to 25 percent of the qualified investment for any taxable year with respect to any advanced manufacturing facility of an eligible taxpayer. Section 48D(b)(1) provides that the ''qualified investment'' with respect to any advanced manufacturing facility for any taxable year is the basis of any qualified property placed in service by the taxpayer during such taxable year which is part of an advanced manufacturing facility. However, the section 48D credit only applies to property placed in service after December 31, 2022, and, for any property the construction of which begins prior to January 1, 2023, only to the extent of the basis thereof attributable to the construction, reconstruction, or erection after August 9, 2022 (the date of enactment of the CHIPS Act). *See* section 107(f)(1) of the CHIPS Act. In addition, the section 48D credit does not apply to property the construction of which begins after December 31, 2026. *See* section 48D(e).

Section 48D(b)(2) provides that, for purposes of section 48D(b), the term ''qualified property'' means tangible property with respect to which depreciation (or amortization in lieu of depreciation) is allowable that is integral to the operation of the advanced manufacturing facility if (I) constructed, reconstructed, or erected by the taxpayer, or (II) acquired by the taxpayer, if the original use of such property commences with the taxpayer. Qualified property includes any building or its structural components satisfying such requirements unless the building or portion of the building is used for offices, administrative services, or other functions unrelated to manufacturing.

Section 48D(b)(3) provides that the term ''advanced manufacturing facility'' means a facility for which the primary purpose is the manufacturing of semiconductors or semiconductor manufacturing equipment.

Section 48D(b)(4) provides that the qualified investment with respect to any advanced manufacturing facility for any taxable year shall not include the portion of the basis of any such property that is attributable to qualified rehabilitation expenditures (as defined in section 47(c)(2) of the Code).

Section 48D(b)(5) states that rules similar to the rules of subsections (c)(4) and (d) of section 46 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990) shall apply for purposes of section 48D(a).

Section 48D(c) provides that, for purposes of the section 48D credit, an ''eligible taxpayer'' is any taxpayer that (1) is not a foreign entity of concern (as defined in section 9901(6) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, as amended by section 103

of the CHIPS Act), and (2) has not made an applicable transaction (as defined in section 50(a) of the Code) during the taxable year.

Section 107(b) of the CHIPS Act added new section 50(a)(3), (6)(D) and (E) to the Code to provide special recapture rules for certain expansions in connection with advanced manufacturing facilities. Under section 50(a)(3)(A), if there is an applicable transaction by an applicable taxpayer before the close of the 10-year period beginning on the date such taxpayer placed in service property that is eligible for the section 48D credit, then the taxpayer's Federal income tax liability under chapter 1 of the Code (chapter 1) for the taxable year in which such transaction occurs must be increased by 100 percent of the aggregate decrease in the credits allowed under section 38 for all prior taxable years which would have resulted solely from reducing to zero any investment credit determined under section 46 that is attributable to the section 48D credit with respect to such property (applicable transaction recapture rule). Section 50(a)(3)(B) provides an exception to the applicable transaction recapture rule for an applicable taxpayer that demonstrates to the satisfaction of the Secretary that the applicable transaction has been ceased or abandoned within 45 days of a determination and notice by the Secretary. Section 50(a)(3)(C) authorizes the Secretary to issue such regulations or other guidance as the Secretary determines necessary or appropriate to carry out the purposes of the applicable transaction recapture rule, including regulations or other guidance providing for recordkeeping requirements or information reporting for purposes of administering the requirements of section 50(a)(3).

As added to the Code by section 107(b)(2) of the CHIPS Act, section 50(a)(6)(D) provides that for purposes of section 50(a), the term ''applicable transaction'' means, with respect to any applicable taxpayer, any significant transaction (as determined by the Secretary, in coordination with the Secretary of Commerce and the Secretary of Defense) involving the material expansion of semiconductor manufacturing capacity of such applicable taxpayer in a foreign country of concern (as defined in section 9901(6) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, as amended by section 103 of the CHIPS Act) other than certain transactions that primarily involve the expansion of manufacturing capacity for legacy semiconductors (as defined in section 9902(a)(6) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, as amended by section 103 of the CHIPS Act).

Section 50(a)(6)(E) defines an ''applicable taxpayer'' for purposes of section 50(a) as any taxpayer who has been allowed a section 48D credit for any prior taxable year.

II. Proposed and Temporary Regulations

On March 23, 2023, the Department of the Treasury (Treasury Department) and the IRS published proposed regulations (REG–120653–22) in the **Federal Register** (88 FR 17451) related to the section 48D credit under the authority granted by sections 48D(d), 50(a), and 7805(a) (March 2023 proposed regulations). The March 2023 proposed regulations primarily would apply long-established credit mechanics and procedures common to all investment tax credits (including the section 48D credit) previously set forth in regulations and subregulatory guidance. In addition, the March 2023 proposed regulations included proposed definitions and rules that would apply for determining who is an eligible taxpayer, what qualifies as qualified property or an advanced manufacturing facility, whether the beginning of construction requirement is met, and what qualifies as a significant transaction involving a material expansion of semiconductor manufacturing capacity in a foreign country of concern for purposes of the special 10-year recapture rule under section 50(a)(3). Consistent with the statutory directive in section 50(a)(6)(D)(i) to coordinate with the Department of Commerce and the Department of Defense regarding such significant transactions, the Treasury Department and the IRS, in coordination with the Department of Commerce and the Department of Defense, incorporated in the March 2023 proposed regulations definitional concepts set forth in proposed 15 CFR part 231 as contained in the proposed rule, *Preventing the Improper Use of CHIPS Act Funding,* published in the **Federal Register** (88 FR 17439) by the CHIPS Program Office, National Institute of Standards and Technology, Department of Commerce (Commerce Proposed Rule). The Commerce Proposed Rule would have provided guardrails to prevent the improper use of CHIPS Act funding overseen by the Department of Commerce. On September 25, 2023, the CHIPS Program Office, National Institute of Standards and Technology, Department of Commerce published the final rule, *Preventing the Improper Use of CHIPS Act Funding,* in the **Federal Register** (88 FR 65600) to add part 231, subchapter C, to 15 CFR chapter II (Commerce Final Rule).

In addition, § 1.48D–6 of the March 2023 proposed regulations set forth the general requirements that would apply for making an elective payment election under section 48D(d), and the general requirement that an eligible taxpayer, partnership, or S corporation would need to comply with the registration procedures in proposed § 1.48D–6(c)(2) as a condition of, and prior to, any amount being treated as a payment under section 48D(d)(1) or (d)(2)(A)(i)(I). However, the March 2023 proposed regulations under proposed § 1.48D–6(c)(2) reserved on the procedures and additional information required for completing the pre-filing registration process.

On June 21, 2023, the Treasury Department and the IRS published proposed regulations (REG–105595–23) in the **Federal Register** (88 FR 40123) authorized by section 48D(d)(6) to update proposed § 1.48D–6 of the March 2023 proposed regulations (June 2023 proposed regulations). Also on June 21, 2023, the Treasury Department and the IRS published temporary regulations (TD 9975) in the **Federal Register** (88 FR 40086) authorized by section 48D(d)(6) under § 1.48D–6T to set forth mandatory information and registration requirements for taxpayers planning to make an elective payment election under section 48D(d) to treat the amount of the section 48D credit as a payment of Federal income tax, or in the case of a partnership or S corporation, to receive a payment in the amount of such credit. The temporary regulations are applicable to property placed in service on or after December 31, 2022, and during a taxable year ending on or after June 21, 2023, and will expire on June 12, 2026. A public hearing on the June 2023 proposed regulations was held on August 24, 2023. On March 11, 2024, the Treasury Department and the IRS published final regulations (TD 9989) in the **Federal Register** (89 FR 17596) authorized by section 48D(d)(6) under § 1.48D–6 to remove the temporary regulations (TD 9975) and adopt the June 2023 proposed regulations with modifications in response to all comments received on the proposed rules and all testimony heard at the public hearings held on July 26, 2023 (March 2023 proposed regulations) and August 24, 2023 (June 2023 proposed regulations) (March 2024 final regulations).

The Treasury Department and the IRS received more than 40 comments responding to the March 2023 proposed

regulations. A public hearing on the March 2023 proposed regulations was held on July 26, 2023. As described in the following Summary of Comments and Explanation of Revisions, this Treasury decision adopts §§ 1.48D–1 through 1.48D–5 and 1.50–2 of the March 2023 proposed regulations with certain modifications after full consideration of all comments received on those proposed rules and all testimony heard at the July 26, 2023, public hearing.

Summary of Comments and Explanation of Revisions

I. Overview

The final regulations set forth in §§ 1.48D–1 through 1.48D–5 and 1.50–2 retain the basic approach and structure of the March 2023 proposed regulations, with certain revisions in response to comments submitted by commenters in response to the March 2023 proposed regulations.

The Treasury Department and the IRS have refined and clarified certain aspects of the proposed regulations in these final regulations. Specifically, the definitions of ''semiconductor manufacturing,'' ''semiconductor manufacturing equipment,'' and ''significant transaction'' have been clarified. The final regulations do not set forth rules for § 1.48D–6 of the March 2023 proposed regulations, because the June 2023 proposed regulations updated § 1.48D–6 of the March 2023 proposed regulations and the June 2023 proposed regulations were finalized by the March 2024 final regulations. Consistent with the proposed regulations, the final regulations primarily apply long-established credit mechanics and procedures common to all investment tax credits (including the section 48D credit) previously set forth in regulations and subregulatory guidance. In addition, consistent with the statutory directive in section 50(a)(6)(D)(i) to coordinate with the Department of Commerce and the Department of Defense regarding the scope of significant transactions that are applicable transactions, the Treasury Department and the IRS, in coordination with the Department of Commerce and the Department of Defense, have incorporated in the final regulations definitional concepts, as determined by the Secretary of Commerce in the Commerce Final Rule in 15 CFR part 231, necessary to align the final regulations related to applicable transactions that result in the recapture of the section 48D credit with the provisions of the Commerce Final Rule.

II. Comments on and Changes to Proposed § 1.48D–1

Commenters requested that the final regulations address whether the taxpayer in proposed § 1.48D–1(c)(2) actually claims a rehabilitation credit. Proposed § 1.48D–1(c)(2) includes an example (proposed example) in which a taxpayer incurred capital expenditures to reconstruct a building. The proposed example indicates that all of the expenditures are ''qualified investment'' for purposes of the section 48D credit and a portion of those expenditures are also qualified rehabilitation expenditures (QREs) (as defined in section 47(c)(2) and § 1.48–12(c)) for purposes of the rehabilitation credit. The proposed example concludes that the amount of the taxpayer's qualified investment does not include the portion of the basis of the property that is attributable to any QREs.

Section 48D(b)(4) and proposed § 1.48D–1(c)(1) provide that qualified investment with respect to any advanced manufacturing facility for any taxable year does not include the portion of the basis of the property that is attributable to QREs. The Treasury Department and the IRS have determined that it would be inconsistent with section 48D(b)(4) to exclude from qualified basis the portion of the basis that is attributable to QREs only when a taxpayer actually claims a rehabilitation credit. Accordingly, the final regulations modify the proposed example to clarify that qualified investment does not include the basis of the property that is attributable to QREs even if the taxpayer does not determine a rehabilitation credit.

Commenters requested that the final regulations clarify whether the section 48D credit has an impact on any other credits established by the Code. The Treasury Department and the IRS note that section 48D(b)(4) provides a special rule for coordination with the rehabilitation credit but does not provide any special rules to coordinate section 48D with other credits established by the Code. Additionally, the Code includes numerous tax credits. Addressing the impact of the section 48D credit on every other credit established by the Code (if any) would require a careful examination of numerous provisions apart from those found in section 48D and the section 48D regulations. For these reasons, addressing whether the section 48D credit has an impact on other credits established by the Code is not necessary for purposes of the final regulations.

III. Comments on and Changes to Proposed § 1.48D–2

A. Basis

Commenters requested clarification on the proper method for determining the portion of basis attributable to the construction, reconstruction, or erection after the date of enactment (August 9, 2022) for property the construction of which began prior to the effective date (January 1, 2023) of section 107 of the CHIPS Act. The commenters requested that the final regulations provide some flexibility to address the difficulties associated with tracking and allocating costs around a date occurring in the middle of the month (August 9, 2022). The commenters also requested that the final regulations allow for the use of any reasonable method and specifically provide that rules similar to the cost allocation rules in §§ 1.48–2(b)(2), 1.48–11(b)(5)(i), and 1.48–12(c)(1) are applicable. One commenter requested that the final regulations clarify that basis can be determined on the principles of section 461 of the Code. The commenter argued that this would clarify, for example, that in cases where a taxpayer has made a payment for construction services prior to August 10, 2022, such payment will be included in the basis of qualified property because the amount is incurred only when the service is performed.

For the avoidance of doubt, no provision of Federal law, including the CHIPS Act or the Code, permits determining any amount of a section 48D credit with respect to any basis in property attributable to construction, reconstruction, or erection that occurred before August 10, 2022 (the first day after the August 9, 2022, date of enactment of the CHIPS Act). However, a rule to address the proper method for allocating basis attributable to the period beginning on the day after the date of enactment (August 10, 2022) and ending on the day immediately before the effective date of section 48D (December 31, 2022) is consistent with the purpose and structure of the statute. Accordingly, the final regulations clarify that for property the construction of which began before January 1, 2023, the portion of basis of such property attributable to construction, reconstruction, or erection after August 9, 2022, the date of enactment of the CHIPS Act, (if any) must be allocated using any reasonable method, including by applying the principles of section 461. The final regulations further clarify that rules similar to the rules in §§ 1.48–2(b)(2), 1.48–11(b)(5)(i), and 1.48–12(c)(1) apply.

Commenters requested that the final regulations provide methods for allocating basis for dual-use property or property comprised of eligible and non-eligible components by square footage, cost, or allow the taxpayer to utilize any reasonable method for allocating cost among properties and time periods. Two commenters requested that the final regulations provide a percentage-based safe harbor rule that allows 100 percent of the basis to qualify if, for example, 80 or 90 percent of the basis is allocable to qualified basis. Commenters also requested that the Treasury Department and the IRS consider whether rules are needed to allocate basis in qualified property in the case of vertically integrated companies that manufacture, for example, ingots, wafers, and semiconductors. Section 48D does not address methods of allocating basis. Section 48D is an investment credit under section 46, and, thus, the investment credit rules for allocating the basis of qualified property apply. Further, the Code includes provisions that control for such purposes (*see,* for example, section 1012). For these reasons, the inclusion of special rules for allocating basis in qualified property as requested by the commenters is not necessary for purposes of the final regulations.

One commenter requested that the final regulations revise the definition of ''basis'' in proposed § 1.48D–2(c) to allow capitalized costs incurred after the placed in service date of qualified property to qualify for the section 48D credit. Another commenter requested that the final regulations state that the basis of an item of qualified property or properties placed in service during the taxable year is the basis on which the credit is claimed for each year and provide examples illustrating this rule in the context of multi-unit or multi-phase manufacturing projects. The Treasury Department and the IRS agree that a revision is needed and have removed from the final regulations the proposed requirement that basis is determined immediately before the qualified property is placed in service. The final regulations clarify that with respect to any qualified property, the term ''basis'' has the same meaning as provided in § 1.46–3(c). Thus, if, for the first taxable year in which property is placed in service by the taxpayer, the property meets the definition of qualified property but the basis of the property does not reflect its full cost for the reason that the total amount to be paid or incurred by the taxpayer for the property is indeterminate, a credit will be allowed to the taxpayer for such first taxable year with respect to so much of the cost as is reflected in the basis of the property as of the close of such taxable year, and a credit will be allowed to the taxpayer for any subsequent taxable year with respect to any additional cost paid or incurred during such subsequent taxable year and reflected in the basis of the property as of the close of such subsequent taxable year. The basis of property determined can include capital expenditures, as defined in section 263 of the Code and §§ 1.263(a)–1 through 1.263(f)–1, with respect to the property. Additionally, § 1.48D–2(h) clarifies that the term ''placed in service'' has the same meaning as provided in § 1.46–3(d). Because the revision made to the final regulations clarifies that the term ''basis'' has the same meaning as provided in § 1.46–3(c), it is not necessary to provide specific examples of this rule as applied to qualified property placed in service during a taxable year.

B. Foreign Entity of Concern and Owned By, Controlled By, or Subject to the Jurisdiction or Direction of

Proposed § 1.48D–2 defined the terms ''foreign entity of concern'' and ''owned by, controlled by, or subject to the jurisdiction or direction of'' to have the same meaning as those terms in the Commerce Proposed Rule. The Commerce Final Rule does not include a definition of ''owned by, controlled by, or subject to the jurisdiction or direction of,'' but includes a revised definition of ''foreign entity of concern.'' The Department of Commerce removed the definition of ''owned by, controlled by, or subject to the jurisdiction or direction of'' from the Commerce Final Rule to provide greater specificity and incorporated the definition of ''owned by, controlled by, or subject to the jurisdiction of'' into the definition of ''foreign entity of concern'' to clarify that the scope of the terms are limited to defining foreign entities of concern. To address the concern that foreign entities of concern could circumvent the restrictions of the rules by establishing entities for which multiple foreign entities of concern each have ownership below the 25 percent threshold, the Commerce Final Rule clarifies that, where at least 25 percent of the person's outstanding voting interest is held directly or indirectly by any combination of persons who would otherwise be foreign entities of concern themselves, that person is a foreign entity of concern.

As stated in the Background section of this preamble, consistent with the statutory authority provided under sections 50(a)(3) and (a)(6)(D)(i) and 7805(a), the Treasury Department and the IRS, in coordination with the Department of Commerce and the Department of Defense, have incorporated in the final regulations definitional concepts as determined by the Secretary of Commerce, and contained in the Commerce Final Rule, necessary for the determination of applicable transactions under section 50(a)(3) and (a)(6)(D). Section 48D(c)(1) defines the term ''eligible taxpayer,'' in part, as any taxpayer that is not a foreign entity of concern (as defined in section 9901(6) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (amending 15 U.S.C. 4651)). Section 50(a)(6)(D)(i) provides rules for when an advanced manufacturing investment credit allowable under section 48D is subject to recapture and defines a foreign entity of concern in the same manner as in section 48D(c)(1). Because section 48D(c)(1) provides rules for when a taxpayer is eligible to claim the advanced manufacturing investment credit, and section 50(a)(6)(D)(i) provides rules for when a taxpayer is no longer eligible for the credit, the statute requires the definition of ''foreign entity of concern'' in both sections to be synonymous. For these reasons, removing the term ''owned by, controlled by, or subject to the jurisdiction or direction of'' from the final regulations and defining the term ''foreign entity of concern'' in the final regulations as having the same meaning as that term as defined in the Commerce Final Rule is consistent with the language and purpose of the statute. The final regulations are revised accordingly.

C. Qualified Investment, Special Rules for Partnerships

Commenters requested a modification to § 1.46–3(f) to permit a partner's share of the basis of qualified property to be determined independent of the ratio in which the partners divide the general profits of the partnership as required under § 1.46–3(f). One of the commenters noted that section 48D is silent as to how a taxpayer's basis in qualified property should be allocated in the context of passthrough entities. Section 48D is among the investment credits listed under section 46. *See* section 46(6). The investment credit under section 46 is a business credit under section 38(b)(1). Thus, property with respect to which a section 48D credit is determined is section 38 property.

Section 1.704–1(b)(4)(ii), which requires allocations with respect to the investment credit provided by section

38(b)(1) to be made in accordance with the partners' interests in the partnership, provides that allocations of cost or qualified investment made in accordance with § 1.46–3(f) are deemed to be made in accordance with the partners' interests in the partnership. Pursuant to § 1.46–3(f)(1), in the case of a partnership that owns section 38 property, a partner in a partnership is treated as the taxpayer with respect to the partner's share of the basis of partnership section 38 property. Section 1.46–3(f)(2)(i) provides that a partner's share of basis is determined in accordance with the ratio in which the partners share general profits. Pursuant to § 1.46–3(f)(2)(ii), if all related items of income, gain, loss, and deduction with respect to any item of partnership section 38 property are specially allocated in the same manner as if such special allocation is recognized under section 704(a) and (b) and § 1.704–1(b), then each partner's share of the basis of such item of section 38 property is determined by reference to such special allocation effective for the date on which the property is placed in service, rather than in accordance with the ratio in which the partners share general profits. Thus, § 1.46–3(f), as currently in effect already permits special allocations of a partner's share of the basis of an item of section 38 property independent of the ratio in which the partners divide the general profits of the partnership if all requirements under § 1.46–3(f)(2)(ii) are met. Also, modifying the regulations under § 1.46–3(f) to allow for allocations beyond what is already permitted under § 1.46–3(f), including § 1.46–3(f)(2)(ii), would have broad implications beyond the application of section 48D, and for that reason, such modifications would not be appropriate to include in the final regulations. For the foregoing reasons, the final regulations do not incorporate the commenters' recommendations regarding § 1.46–3(f).

D. Qualified Progress Expenditures Election

One commenter requested that the final regulations clarify whether an election for qualified progress expenditure can be made for expenses paid or incurred after August 9, 2022, through December 31, 2022. The Treasury Department and the IRS have determined that no further clarification is necessary concerning the availability of a progress expenditures election. Section 48D(b)(5) applies rules similar to the progress expenditures rules of section 46(c)(4) and (d) as in effect on the day before the date of enactment of the Revenue Reconciliation Act of 1990. Section 107(f)(1) of the CHIPS Act provides that the section 48D credit can be claimed for property placed in service after December 31, 2022, and for any property the construction of which began prior to January 1, 2023, only to the extent of the basis thereof attributable to the construction, reconstruction or erection after the date of enactment (August 9, 2022). Consistent with the statute, § 1.48D–2(j)(3)(i) of the final regulations provides that the taxpayer may elect, as provided in § 1.46–5, which provides the rules governing qualified progress expenditures, to increase the qualified investment with respect to an advanced manufacturing facility of an eligible taxpayer for the taxable year by any qualified progress expenditures made after August 9, 2022. Accordingly, an election for qualified progress expenditures can be made for expenses paid or incurred after August 9, 2022, and on or before December 31, 2022. In addition, the final regulations under § 1.48D–2(j)(3)(ii) clarify that, if progress expenditure property is being constructed by or for a partnership or S corporation, the rules of § 1.46–5(o)(1) and (p) do not prohibit a partnership or S corporation from making a qualified progress expenditure election under § 1.46–5 if such partnership or S corporation intends to make an elective payment election under section 48D(d) and § 1.48D–6 with respect to a section 48D credit determined with respect to such qualified property.

One commenter requested that the final regulations or other guidance provide guidance on the definitions of ''self-constructed'' versus ''non-self-constructed property'' and ''integrated unit'' for purposes of determining the construction period under § 1.46–5. Pursuant to § 1.46–5(d), whether a property, including qualified property under section 48D(b)(2) and the section 48D regulations, is progress expenditure property is determined based on the facts known at the close of the first taxable year in which construction begins, or if later, at the close of the first taxable year to which a progress expenditures election is made. Whether property is ''self-constructed'' versus ''non-self-constructed property'' or an ''integrated unit'' pursuant to § 1.46–5(k), (l) and (e)(3), respectively, is also a factual determination. Additional guidance on the definitions of ''self-constructed'' versus ''non-self-constructed property'' and ''integrated unit,'' would inject significant complexity into the final regulations and likely cause additional uncertainty regarding the scope of those terms. Such guidance would have implications for any investment tax credit, including, for example, the rehabilitation credit under section 47 and the energy credit under section 48, for which a taxpayer can made a qualified progress expenditures election. For these reasons, such guidance is not appropriate to be included in the final regulations. Accordingly, the final regulations do not address the modifications requested by the commenter.

One commenter requested that the final regulations provide that the percentage of completion limitation for non-self-constructed property under § 1.46–5(j)(6) does not apply or that it be amended to allow for a greater percentage (up to 66 percent) of completion for semiconductor tooling equipment. The commenter argued that some tooling equipment manufacturers require a payment of as much as 90 percent of the total contract price in the first year the order is placed. Section 1.46–5(j)(6)(i) provides: (1) payments made in any taxable year may be considered qualified progress expenditures for non-self-constructed property only to the extent they are attributable to progress made in construction (percentage of completion limitation); (2) progress will generally be measured in terms of the manufacturer's incurred cost as a fraction of the anticipated cost (as adjusted from year to year); and (3) progress is presumed to occur not more rapidly than ratably over the normal construction period but the taxpayer may rebut the presumption by clear and convincing evidence of a greater percentage of completion. Section 1.46–5(j)(6)(i) provides sufficient flexibility for taxpayers that intend to claim a section 48D credit for qualified progress expenditures. The commenter requested a modification to the percentage of completion limitation for non-self-constructed property under § 1.46–5(j)(6) for semiconductor tooling equipment only; however, such modification would require a careful examination of any implications for all other investment tax credits for which a taxpayer can make a qualified progress expenditures election, including, for example, the rehabilitation credit under section 47 and the energy credit under section 48. For these reasons, the final regulations do not adopt the commenter's recommendations.

E. Definitions of Semiconductor and Semiconductor Manufacturing

1. In General

Commenters requested that the final regulations expand the definition of

''semiconductor'' and ''semiconductor manufacturing'' to encompass additional products, substances, and processes. The commenters requested that, among other materials and substances, wafers, diamond wafer substrates, ingots, boules, high-purity silicon, silicon carbide, polysilicon, semiconductive substances, III–V compounds, ceramics, lithographic materials, specialty adhesives and cleaners, metals and dielectrics, and quantum electronics be included in the definition of ''semiconductor.'' Commenters also requested that the final regulations modify the definition of ''semiconductor manufacturing'' if the definition of ''semiconductor'' is expanded to include additional products and substances.

Consistent with the statutory authority provided under sections 50(a)(3) and (a)(6)(D)(i) and 7805(a), the Treasury Department and the IRS, in coordination with the Department of Commerce and the Department of Defense, have incorporated in the final regulations definitional concepts that are consistent with the Commerce Final Rule and necessary for the determination of both eligibility for the section 48D credit and applicable transactions under section 50(a)(3) and (a)(6)(D).

Accordingly, the final regulations provide that a taxpayer may claim a section 48D credit for qualified property placed in service as part of an advanced manufacturing facility the primary purpose of which is semiconductor manufacturing. The final regulations define ''semiconductor manufacturing'' as semiconductor wafer production, semiconductor fabrication, and semiconductor packaging.

The remainder of this section III.E of this Summary of Comments and Explanation of Revisions discusses the definitions adopted in the final regulations of the terms ''semiconductors,'' ''semiconductor manufacturing,'' ''semiconductor wafer production,'' ''semiconductor fabrication,'' and ''semiconductor packaging.''

2. Semiconductors

The term ''semiconductor'' is among those definitional concepts necessary for the determination of whether a transaction is a significant transaction involving the material expansion of *semiconductor* manufacturing capacity in a foreign county of concern (*emphasis added*). Because the term ''semiconductor'' is also a definitional concept necessary for the determination of when a taxpayer is eligible to claim the advanced manufacturing investment credit, the statute requires the definition of ''semiconductor'' for purposes of sections 48D and 50(a)(6)(D)(i) to be synonymous. Moreover, failing to define the term ''semiconductor'' for purposes of the section 48D regulations would contravene the statutory directive under section 50(a)(6)(D)(i) to define what is a ''significant transaction'' for the expansion of semiconductor manufacturing capacity other than with regard to certain ''legacy semiconductors.'' In addition, section 9901(9) of the William M. (Mac) Thornberry National Defense Authorization Act, as redesignated by section 103(a)(2) of the CHIPS Act, for Fiscal Year 2021 (15 U.S.C. 4651), provides that the term ''semiconductor'' has the same meaning given that term by the Secretary of Commerce. For these reasons, the Treasury Department and the IRS decline to expand the definition of ''semiconductor'' to include additional products and substances beyond what is provided in the Commerce Final Rule, as suggested by the commenters.

Consistent with the definition of ''semiconductor'' in the Commerce Final Rule (15 CFR 231.115), and pursuant to the statutory authority provided under sections 50(a)(3) and (a)(6)(D)(i) and 7805(a), the final regulations provide that a semiconductor is an integrated electronic device or system most commonly manufactured using materials such as, but not limited to, silicon, silicon carbide, or III–V compounds, and processes such as, but not limited to, lithography, deposition, and etching. Such devices and systems include, but are not limited to, analog and digital electronics, power electronics, and photonics, for memory, processing, sensing, actuation, and communications applications.

3. Definition of Semiconductor Manufacturing

One commenter requested that the final regulations expand the definition of ''semiconductor manufacturing'' to cover a broader space (aerospace) semiconductor manufacturing process. As noted in section IV.E of this Summary of Comments and Explanation of Revisions, section 48D is silent on the topic of semiconductor manufacturing in space or whether semiconductor manufacturing can occur in space. Whether semiconductor manufacturing can occur in space would require a careful examination of all relevant facts and circumstances, any applicable Code provisions and Federal income tax principles apart from those found in section 48D and the section 48D regulations. As such, changing the definition of semiconductor manufacturing to include an aerospace semiconductor manufacturing process, as requested by the commenter, is beyond the scope of section 48D and the section 48D regulations. Accordingly, the final regulations do not adopt rules to address semiconductor manufacturing in space.

4. Semiconductor Wafer Production

As previously discussed, commenters requested that the final regulations modify the definition of ''semiconductor manufacturing'' (and synonymously, the term ''manufacturing of semiconductors'') if the definition of ''semiconductor'' is expanded to include additional products and substances. Although the final regulations do not expand the definition of ''semiconductor'' beyond what is provided in the Commerce Final Rule, the final regulations clarify the definition of ''semiconductor manufacturing'' by specifying that it includes ''semiconductor wafer production'' but not further upstream production processes, pursuant to the statutory authority provided under sections 50(a)(3) and (a)(6)(D)(i) and 7805(a). The clarification that ''semiconductor manufacturing'' includes ''semiconductor wafer production'' is consistent with the definition of ''semiconductor manufacturing'' in the Commerce Final Rule (15 CFR 231.116) issued pursuant to section 103(b) of the CHIPS Act (15 U.S.C. 4652), which provides that, for purposes of the Expansion Clawback (described later), the term ''semiconductor manufacturing'' has the same meaning given that term by the Secretary of Commerce, in consultation with the Secretary of Defense and the Director of National Intelligence.

However, the production of additional products and substances requested by commenters to be included in ''semiconductor manufacturing'' would not be appropriate as those are materials that are consumed or substantially transformed during the semiconductor manufacturing processes, and not included in the definition of ''semiconductor manufacturing'' in the Commerce Final Rule. For these reasons, the final regulations clarify that the definition of the term ''manufacturing of semiconductors'' (and synonymously ''semiconductor manufacturing'') includes semiconductor wafer production but excludes the production of precursor materials such as polysilicon from the scope of the definition.

The final regulations define the term ''semiconductor wafer production'' to include ''the processes of *growing single-crystal ingots and boules,* wafer slicing, *etching and* polishing, *bonding,* cleaning, epitaxial deposition, and metrology'' (emphasis added). The Commerce Final Rule defines the term ''semiconductor wafer production'' to include the processes of wafer slicing, polishing, cleaning, epitaxial deposition, and metrology. The final regulations differ from the Commerce Final Rule by including ''growing single-crystal ingots and boules,'' ''etching,'' and ''bonding'' in the definition of ''semiconductor wafer production'' because the purposes of the relevant provisions in the Commerce Final Rule and those in the section 48D regulations differ.

The CHIPS Act established the section 48D credit for the purpose of incentivizing the manufacturing of semiconductors and semiconductor manufacturing equipment within the United States and amended section 50(a) to provide for recapture of the section 48D credit if an applicable taxpayer engages in an applicable transaction. Thus, the section 48D regulations include definitions and rules that apply for determining who is an eligible taxpayer, what qualifies as qualified property or an advanced manufacturing facility, and whether the beginning of construction requirement is met.

However, the purposes of relevant definitions and rules in the section 48D regulations differ from the purpose of the Commerce Final Rule, which relates to implementing the CHIPS Act's ''Expansion Clawback.'' As a matter of United States national security interests, a funding recipient is required by statute to enter into an agreement with the Department of Commerce restricting engagement by the funding recipient or its affiliates in any significant transaction involving the material expansion of semiconductor manufacturing capacity in foreign countries of concern. Failure by a funding recipient (or its affiliate) to comply with the restriction on semiconductor manufacturing capacity expansion in foreign countries of concern may cause the Expansion Clawback to apply, resulting in recovery of the full amount of Federal financial assistance provided to the funding recipient.

The differences between the meaning of ''semiconductor wafer production'' in the Commerce Final Rule and in the final regulations reflects the difference between the purposes of the two rules as intended by Congress. The Expansion Clawback prohibits funding recipients from knowingly engaging in a significant transaction, and the section 48D credit incentivizes taxpayers to engage in the manufacturing of semiconductors and semiconductor manufacturing equipment in the United States, provided the applicable taxpayer does not also engage in an applicable transaction. For these reasons, the Treasury Department and the IRS, after consultation with the Department of Commerce and the Department of Defense pursuant to the statutory authority provided under sections 50(a)(3) and (a)(6)(D)(i) and 7805(a), have determined that a clarification is necessary to confirm that for purposes of the section 48D credit, ''semiconductor wafer production'' includes growing single-crystal ingots and boules, wafer slicing, etching and polishing, bonding, cleaning, epitaxial deposition, and metrology. The Treasury Department and the IRS note that the term ''semiconductor wafer production'' in the final regulations also includes growing single-crystal ingots and boules, wafer slicing, etching and polishing, bonding, cleaning, epitaxial deposition, and metrology as applied to the production of solar wafers. The Treasury Department and the IRS note this after coordination with the Department of Commerce and the Department of Defense due to specific supply chain and national security considerations regarding the production of solar wafers not present in the case of other related products.

5. Semiconductor Fabrication

The final regulations provide that the term ''semiconductor fabrication'' includes ''the process of forming devices such as transistors, poly capacitors, non-metal resistors, and diodes, *as well as interconnects between such devices,* on a wafer of semiconductor material'' (emphasis added). The Commerce Final Rule defines the term ''semiconductor fabrication'' to include the process of forming devices such as transistors, poly capacitors, non-metal resistors, and diodes on a wafer of semiconductor material. The final regulations differ from the Commerce final rule by including ''interconnects between such devices.''

The difference between the definition of ''semiconductor fabrication'' in the Commerce Final Rule and the final regulations with respect to ''interconnects between such devices'' reflects the difference between the purpose of the section 48D regulations and the Expansion Clawback. As explained in section III.E.4 of this Summary of Comments and Explanation of Revisions, the Expansion Clawback prohibits funding recipients from knowingly engaging in a significant transaction, whereas the section 48D credit incentivizes taxpayers to engage in the manufacturing of semiconductors and semiconductor manufacturing equipment in the United States, provided the applicable taxpayer does not also engage in an applicable transaction. For these reasons, the Treasury Department and the IRS, in coordination with the Department of Commerce and the Department of Defense, and pursuant to the statutory authority provided under sections 50(a)(3) and (a)(6)(D)(i) and 7805(a), have determined that a clarification is necessary to confirm that for purposes of the section 48D credit, ''semiconductor fabrication'' includes the process of forming interconnects between such devices.

6. Semiconductor Packaging

Several commenters requested that the definition of ''semiconductor manufacturing'' be revised to include assembly and testing within all stages of packaging. Commenters also requested that the final regulations provide definitions of the terms ''assembly'' and ''testing.'' As previously noted, consistent with the statutory authority provided under sections 50(a)(3) and (a)(6)(D)(i) and 7805(a), the Treasury Department and the IRS, in coordination with the Department of Commerce and the Department of Defense, have incorporated in the final regulations definitional concepts as determined by the Secretary of Commerce, and contained in the Commerce Final Rule necessary for the determination of applicable transactions under section 50(a)(3) and (a)(6)(D). The preamble to the Commerce Proposed Rule clarifies that ''semiconductor manufacturing'' includes both front-end fabrication as well as back-end manufacturing including assembly, testing, and packaging of semiconductors. Accordingly, revising the definition of ''semiconductor manufacturing'' to include ''assembly'' and ''testing'' and providing definitions of ''assembly'' and ''testing'' is consistent with the purpose of the section 48D credit to incentivize the manufacture of semiconductors within the United States. Accordingly, § 1.48D–2(n) of the final regulations provides that semiconductor packaging includes assembly and testing. Section 1.48D–2(n)(4) and (5) of the final regulations provide definitions of ''assembly'' and ''testing,'' respectively.

One commenter requested that the final regulations clarify that the term

''semiconductor packaging'' include the manufacturing of IC-substrates. As stated in the Background section of this preamble, consistent with the statutory authority provided under sections 50(a)(3) and (a)(6)(D)(i) and 7805, the Treasury Department and the IRS, in coordination with the Department of Commerce and the Department of Defense, have incorporated in the final regulations definitional concepts as determined by the Secretary of Commerce, and contained in the Commerce Final Rule necessary for the determination of applicable transactions under section 50(a)(3) and (a)(6)(D). Consistent with the Commerce Final Rule, the final regulations define the term ''semiconductor packaging'' as the process of enclosing a semiconductor in a protective container (package) and providing external connectivity for the assembled integrated circuit. The manufacturing of a substrate used during the semiconductor packaging process is not part of ''semiconductor packaging'' as defined under the final regulations. For the foregoing reason, the final regulations do not adopt the commenter's recommendation.

F. Definitions of Semiconductor Manufacturing Equipment, Subsystems, and Manufacturing Semiconductor Manufacturing Equipment

Commenters requested that the final regulations modify the definition of ''semiconductor manufacturing equipment'' to include direct and indirect materials integral to the semiconductor manufacturing equipment, such as, electronic grade isopropyl alcohol, precision bearings, industrial gases including high purity and general purpose nitrogen, chemicals such as fluoropolymers peroxides and fluorogases, lens and mirrors, and components. Commenters requested that the final regulations define the term ''subsystem'' as highly engineered and specialty equipment that is either sold directly to, or primarily produced for, a semiconductor fabricator or a third-party equipment manufacturer.

Among other requirements, section 48D(b)(2) and § 1.48D–3(c) (referencing § 1.48–1(c) and (d)) require that property be tangible depreciable property, for example, production machinery, to meet the definition of qualified property. Gases, chemicals, and materials, such as IC-substrates and diamond wafer substrates, and semiconductive substances, that are consumed, utilized, or substantially transformed in a similar manner during the manufacturing process does not meet the threshold requirement of section 48D(b)(2) and § 1.48D–3(c) because they are not tangible depreciable property for purposes of the section 48D credit.

For the foregoing reason, the Treasury Department and the IRS decline to adopt the commenters' requests to modify the definition of ''semiconductor manufacturing equipment'' to include such materials. The final regulations clarify that ''semiconductor manufacturing equipment'' means the highly engineered specialized equipment used in the manufacturing of semiconductors as defined in § 1.48D–2(g) and the subsystems that enable, or are incorporated into, the manufacturing equipment. This definition will eliminate uncertainty in determining whether property is semiconductor manufacturing equipment, as opposed to consumable materials, chemicals, or gases, that do not meet the definition of semiconductor manufacturing equipment.

The Treasury Department and the IRS decline to adopt the commenters' recommendations to define the term ''subsystem'' as highly engineered and specialty equipment that is either sold directly to, or is primarily produced for, a semiconductor fabricator or a third-party equipment manufacturer. Providing such a definition would inject significant complexity into the final regulations. Consistent with the definition of semiconductor manufacturing equipment in the proposed regulations, § 1.48D–2(o) provides that the term ''semiconductor manufacturing equipment'' includes the subsystems that enable, or are incorporated into, the manufacturing equipment. Additionally, property that may be considered a subsystem must also meet the requirements of section 48D and the section 48D regulations.

Commenters also requested that the list of examples of ''semiconductor manufacturing equipment'' be expanded to include any property that is considered property integral to the operation of an advanced manufacturing facility under proposed § 1.48D–3(f)(1). The Treasury Department and the IRS have determined that such a rule is inconsistent with the purpose and structure of the statute, which clearly contemplates that not all property integral to the operation of an advanced manufacturing facility be treated as semiconductor manufacturing equipment. Although certain property, such as a gas handling system, may be property integral to the operation of an advanced manufacturing facility under section 48D(b)(2)(A)(iv) and proposed § 1.48D–3(f), that property does not, by application of the standard in section 48D(b)(2)(A)(iv) and proposed § 1.48D–3(f), meet the definition of semiconductor manufacturing equipment under § 1.48D–2(o) of the final regulations.

Commenters requested that the final regulations clarify that the list of examples of semiconductor manufacturing equipment is non-exclusive and provide an illustrative list of subsystems to include, items such as specialty glass lenses, photomasks, lenses and mirrors like those made of calcium fluoride or high-purity fused silica, lens assemblies for wafer defect inspection following wafer printing, light sources or other major components of photolithography systems, and advanced ceramic products. The Treasury Department and the IRS have determined that such clarifications are appropriate for defining ''semiconductor manufacturing equipment.'' Accordingly, the final regulations clarify that the list of examples of semiconductor manufacturing equipment and subsystems is non-exclusive and includes additional examples of property that may qualify as semiconductor manufacturing equipment and subsystems. The Treasury Department and the IRS again note that property that may be considered a subsystem must also meet the requirements of section 48D and the section 48D regulations.

Commenters further requested that the final regulations clarify that a component, part or subsystem may be considered semiconductor manufacturing equipment on a case-by-case basis, and provide factors that are persuasive, including industry definitions, CHIPS Act funding, complexity of part, or other United States Government Agency categorizations that define it as semiconductor equipment. As stated in the Background section of this preamble, consistent with the authority granted by sections 50(a)(3) and (a)(6)(D)(i) and 7805(a), the Treasury Department and the IRS, in coordination with the Department of Commerce and the Department of Defense, have incorporated in the final regulations definitional concepts as determined by the Secretary of Commerce, and contained in the Commerce Final Rule necessary for the determination of applicable transactions under section 50(a)(3) and (a)(6)(D). For this reason, the Treasury Department and the IRS have determined that incorporating definitions from other United States Government agencies that define semiconductor equipment for other purposes would not be appropriate. The Treasury Department and the IRS have further determined that including a case-by-case facts and circumstances

rule as suggested by the commenters would inject significant complexity into the final regulations and likely cause additional uncertainty regarding the scope of the term ''semiconductor manufacturing equipment'' due to its inherently factual nature. As a result, the final regulations do not incorporate the commenters' recommendations.

The Treasury Department and the IRS note that proposed § 1.48D–2(n) would define ''manufacturing semiconductor manufacturing equipment'' as the physical production of semiconductor manufacturing equipment in a manufacturing facility. As further described in section V.A. of this Summary of Comments and Explanation of Revisions, the final regulations modify the proposed definition of ''advanced manufacturing facility'' by removing the requirement that such a facility manufacture ''finished'' semiconductor manufacturing equipment. Consistent with the modification, the final regulations define the term ''manufacturing of semiconductor manufacturing equipment'' to require that that such semiconductor manufacturing equipment be used by an advanced manufacturing facility engaged in the manufacturing of semiconductors as defined in § 1.48D–2(g) of the final regulations.

IV. Comments on and Changes to Proposed § 1.48D–3

A. Part of an Advanced Manufacturing Facility

Commenters requested clarification that a taxpayer's ownership of an advanced manufacturing facility is not a prerequisite for claiming the section 48D credit when a taxpayer places in service qualified property that is co-located on an advanced manufacturing facility and otherwise meets the requirements of section 48D and the final regulations. One commenter requested that the final regulations provide that property that is physically located or co-located on an advanced manufacturing facility and integral to the operation of the advanced manufacturing facility be considered part of the advanced manufacturing facility. The Treasury Department and the IRS agree that neither section 48D(b)(1) and (2), nor any other provision under section 48D, require a taxpayer to own the advanced manufacturing facility as a prerequisite to determining a section 48D credit. Section 48D(b)(1) and (2) mandate that, among other requirements, property be placed in service as part of, and, integral to the operation of an advanced manufacturing facility to be ''qualified property'' for purposes of the section 48D credit. Therefore, the final regulations include a definition of ''part of an advanced manufacturing facility'' to clarify that property is part of the advanced manufacturing facility if the property is physically located or co-located either (1) at the advanced manufacturing facility, or (2) on a contiguous piece of land to the advanced manufacturing facility. The final regulations clarify that parcels or tracts of land are considered contiguous if they possess common boundaries and would be contiguous but for the interposition of a road, street, railroad, public utility, stream or similar property. Generally, property that is not physically located or co-located at the advanced manufacturing facility or on a piece of land contiguous to the advanced manufacturing facility is not part of an advanced manufacturing facility.

The Treasury Department and the IRS are aware that certain properties, for example, a water or wastewater treatment plant, may not be physically located or co-located at an advanced manufacturing facility or on a contiguous piece of land to the advanced manufacturing facility, but could be integral to the operation of the advanced manufacturing facility. For this reason, a rule allowing such properties in certain situations to be considered part of an advanced manufacturing facility is appropriate for purposes of the section 48D credit. Accordingly, the final regulations provide that property that is not located or co-located at an advanced manufacturing facility or on a contiguous piece of land to the advanced manufacturing facility may be considered part of an advanced manufacturing facility if the property is (1) owned by the same taxpayer as the entire advanced manufacturing facility, (2) connected to the advanced manufacturing facility (for example, via pipeline), and (3) the sole purpose, function, and output of the property is dedicated to the operation of the advanced manufacturing facility. However, such property must also meet the requirements of section 48D and the section 48D regulations. The final regulations include two examples to illustrate the application of section 48D(b) and § 1.48D–3(f).

B. Buildings and Offices

Commenters requested that the final regulations expand the definition of ''qualified property'' to include an existing building that is purchased but not reconditioned or re-built by the taxpayer. It would be inconsistent with the statute to allow a building that is purchased but not reconstructed by the taxpayer to be ''qualified property'' for purposes of the section 48D credit. Section 48D(b)(2)(A)(iii)(I) provides that the term ''qualified property'' means property that is, among meeting other requirements, ''constructed, reconstructed, or erected by the taxpayer.'' Therefore, the final regulations retain the rule set forth in proposed § 1.48D–3(b)(1).

Commenters requested that the final regulations remove ''offices'' from the exception to the definition of tangible depreciable property in § 1.48D–3(c)(2) in order to allow certain office space within an advanced manufacturing facility to meet the definition of tangible depreciable property in § 1.48D–3(c)(1). It would be inconsistent with the statute to omit ''offices'' from the exception to the definition of tangible depreciable property, but further clarification is necessary concerning the meaning of the term ''office''. Section 48D(b)(2)(B)(ii) excludes from the definition of ''qualified property'' ''a building or portion of a building used for offices, administrative services, or other functions unrelated to manufacturing.'' Accordingly, the final regulations clarify that the term ''tangible depreciable property'' does not include a building and its structural components used for offices. But, in response to the comments received, the final regulations also provide a list of certain buildings or portions of a building within an advanced manufacturing facility that are considered related to manufacturing and not considered offices. However, whether a particular building or portion of a building is used as an office, for administrative services, or is unrelated to manufacturing is a factual determination.

C. Certain Leasing Transactions and Original Use

A commenter requested that the final regulations clarify that a lessor election under § 1.48–4 to treat the lessee as having acquired investment credit property is permitted with respect to the section 48D credit. The commenter also requested that the final regulations address whether a lessor or lessee that purchases a previously leased advanced manufacturing facility and subsequently reconditions or rebuilds the facility is eligible to claim a section 48D credit. The Treasury Department and the IRS agree with the commenter that a lessor election under § 1.48–4 to treat the lessee as having acquired investment credit property is permitted by operation of the statute. Section 48D is

an investment credit under section 46. Section 50(d)(5) provides that, for purposes of computing the investment credit, rules similar to the rules of former section 48(d) (relating to certain leased property) (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990 (Pub. L. 101–508, 104 Stat. 1388 (November 5, 1990)) apply. Section 1.48–4 provides the regulatory requirements for the time and manner for making an election to treat the lessee as having purchased the property for purpose of the credit allowed and the regulatory requirements, including for original use, that must be met and are applicable for purposes of the election. The Treasury Department and the IRS decline to address specific examples of leasing transactions in the final regulations and note that the investment credit recapture provisions under section 50(a) and regulations, including §§ 1.47–1 through 1.47–3 apply for purposes of the section 48D credit.

Commenters also requested that the definition of ''original use'' in proposed § 1.48D–3(e) be modified in the final regulations to include acquired property that is reconditioned or rebuilt by a different taxpayer. Section 48D(b)(2)(A)(iii)(I) and (II) provide that ''qualified property'' includes property that is constructed, reconstructed, or erected by the taxpayer, or acquired by the taxpayer if the ''original use'' of such property begins with the taxpayer. Thus, the taxpayer must reconstruct or rebuild a property to meet the ''original use'' requirement under section 48D(b)(2)(A)(iii). Accordingly, the Treasury Department and the IRS decline to adopt this recommendation.

D. Property Integral to the Operation of an Advanced Manufacturing Facility

One commenter requested that the sentence in proposed § 1.48D–3(f)(1) that states, ''Materials, supplies, and other inventoriable items of property that are transformed into a finished semiconductor or into a finished unit of semiconductor manufacturing equipment are not considered property integral to the operation of manufacturing semiconductors or semiconductor manufacturing equipment'' be modified to provide that such materials are integral to the operation of an advanced manufacturing facility. The Treasury Department and the IRS decline to adopt this recommendation. As noted in section III.I. of this Summary of Comments and Explanation of Revisions, among other requirements, section 48D(b)(2) and § 1.48D–3(c) (referencing § 1.48–1(c) and (d)) require that property be tangible depreciable property, for example, production machinery, to meet the definition of qualified property. Gases, chemicals, and materials, such as diamond wafer substrates, and other semiconductive substances, that are consumed, utilized, or substantially transformed during the manufacturing process, or any other inventoriable items of property do not meet the threshold requirement of section 48D(b)(2) and § 1.48D–3(c) to be ''qualified property'' because they are not tangible depreciable property for purposes of the section 48D credit. Thus, such property would not be property ''integral to the operation of an advanced manufacturing facility'' under the statute.

Another commenter requested that the final regulations clarify that the term ''transformed'' in proposed § 1.48D–3(f)(1) does not refer to the normal degradation of components of semiconductor manufacturing equipment. However, a clarification is appropriate for establishing whether property is integral to the operation of an advanced manufacturing facility. Accordingly, § 1.48D–3(g)(1) of the final regulations clarifies that the term ''transformed'' does not include the normal degradation of components of semiconductor manufacturing equipment.

The final regulations include a special rule for purposes of establishing whether property is integral to the operation of a vertically integrated manufacturing facility. As discussed in section III.E. of this Summary of Comments and Explanation of Revisions, the final regulations clarify that the term ''semiconductor manufacturing'' includes semiconductor packaging, semiconductor fabrication, and semiconductor wafer production but excludes manufacturing processes related to precursor materials such as polysilicon. Consistent with this modification, the final regulations provide that, if an advanced manufacturing facility that is engaged in the manufacturing of semiconductors within the meaning of § 1.48D–2 also conducts vertically integrated activities (for example, producing raw materials and manufacturing ingots, wafers, and semiconductors), then property integral to the operation of such an advanced manufacturing facility includes only the property used in the manufacturing of semiconductors within the meaning of § 1.48D–2.

Commenters requested that examples of property that would normally be integral to operation of an advanced manufacturing facility in proposed § 1.48D–3(f)(1) be modified to reflect any modifications to the definitions of ''semiconductor'' and ''semiconductor manufacturing equipment'' in the final regulations. Commenters also requested that the final regulations include additions to the list of specific property under § 1.48D–3(f)(1) to provide certainty to taxpayers. The commenters requested that the list include, property such as electricity distribution equipment, industrial automation and control equipment, communications devices, lighting products, water management, conservation, water treatment equipment, materials, and technologies, and tooling equipment. The Treasury Department and the IRS have determined that adding to the list of specified property that would ''normally be integral to the operation of an advanced manufacturing facility'' consistent with the modification to the definitions of ''semiconductor manufacturing'' and ''semiconductor manufacturing equipment'' under § 1.48D–2(n) and (o) of the final regulations is appropriate for determining whether property is ''integral to the operation of an advanced manufacturing facility.'' Accordingly, § 1.48D–3(g)(3) of the final regulations includes additional examples of such property.

One commenter requested that proposed § 1.48D–3(f)(2) be modified to treat research facilities that do not manufacture any type of semiconductor or semiconductor manufacturing equipment to qualify as integral to the operation of an advanced manufacturing facility. The commenter further stated that the restriction in § 1.48D–3(f)(2) of the March 2023 proposed regulations exceeds the statutory exclusions in section 48D(b)(2)(B)(ii) for a building or portion of a building used for offices, administrative services, or other functions unrelated to manufacturing. The statute is silent concerning the treatment of research facilities, but does require, pursuant to section 48D(b)(2)(A)(iv), that property be integral to the operation of an ''advanced manufacturing facility'' to meet the definition of ''qualified property.'' As previously noted in the Background section of this preamble, the March 2023 proposed regulations primarily applied long-established credit mechanics and procedures common to all investment tax credits previously set forth in regulations and subregulatory guidance. Those long-established mechanics and procedures, including those set forth in § 1.48–1 generally require that a research facility be used ''in connection'' with the qualifying activity to be considered used

as integral part of the activity. Section 48D(b)(3) defines an ''advanced manufacturing facility'' as a ''facility for which the primary purpose is the manufacturing of semiconductors or semiconductor manufacturing equipment.'' Under both the March 2023 proposed regulations and the final regulations, facilities built for pre-pilot production lines and the manufacture of prototypes would be qualified property integral to the operation of an advanced manufacturing facility. Based on the foregoing, a research facility that does not manufacture semiconductors or semiconductor manufacturing equipment is not used ''in connection'' with the manufacturing of semiconductors or semiconductor manufacturing equipment. For these reasons, the final regulations do not adopt the commenter's recommendation.

E. Semiconductor Manufacturing in Space

One commenter requested that the final regulations clarify that section 48D directly contemplates semiconductor manufacturing work in space and explicitly confirm that qualifying advanced manufacturing activity can occur in space, and on a low-earth orbiter, in particular. More specifically, the commenter requested that the final regulations: (1) provide an exception to the definition of buildings and structural components unrelated to manufacturing for functions that are critical for human habitation in space; and (2) expand the examples of property integral to the operations of an advanced manufacturing facility to include space delivery vehicles, as all of the examples currently describe either the facility itself or related infrastructure for land-based manufacturing (for example, docks, railroad tracks, and bridges).

Section 48D does not expressly address semiconductor manufacturing in space, or whether a ''qualifying advanced manufacturing activity'' can occur in space, and on a low-earth orbiter, in particular. Section 48D is among the investment credits under section 46. Section 50(b)(1)(A) makes ineligible for the investment credit property that is used predominantly outside the United States. However, section 50(b)(1)(B) provides an exception for property described in section 168(g)(4). Section 168(g)(4)(L) includes an exception for any satellite (not described in section 168(g)(4)(H), which applies to communication satellites) or other spacecraft (or any interest therein) held by a United States person if such satellite or other spacecraft was launched from within the United States. Whether a low-earth orbiter or property placed in service on a low-earth orbiter is described in section 168(g)(4)(L) would require a careful examination of all relevant facts and circumstances, any applicable Code sections and Federal income tax principles apart from those found in section 48D and the section 48D regulations. Whether ''buildings'' or structural components that are critical for human habitation in space are included among the exception for a building or portion of a building used for offices administrative services, or other functions unrelated to manufacturing pursuant to section 48D(b)(2)(B)(ii), also would require a careful examination of all relevant facts and circumstances, any applicable Code sections, and Federal income tax principles apart from those found in section 48D and the section 48D regulations. Similarly, whether property integral to the operation of an advanced manufacturing facility can include space delivery vehicles requires a careful examination of all relevant facts and circumstances. For these reasons, the issues addressed by the commenter are beyond the scope of the final regulations. Accordingly, the final regulations do not adopt rules to address semiconductor manufacturing in space.

V. Comments on and Changes to Proposed § 1.48D–4

A. Definition of Advanced Manufacturing Facility

Section 1.48D–4(b) of the March 2023 proposed regulations would have provided that the term ''advanced manufacturing facility'' means a facility of an eligible taxpayer for which the primary purpose is the manufacturing of finished semiconductors or the manufacturing of finished semiconductor manufacturing equipment. Commenters requested that the final regulations omit the term ''finished'' from the definition of ''advanced manufacturing facility,'' or, define the term ''finished'' if it is retained in the final regulations. Commenters also requested that conforming changes be made to the definition of ''advanced manufacturing facility'' if the definitions of ''semiconductor,'' ''semiconductor manufacturing equipment,'' or ''subsystems'' are modified by the final regulations.

The Treasury Department and the IRS agree with the commenters that the term ''finished'' should be removed from the definition of ''advanced manufacturing facility'' in the final regulations to reflect industry practice and the modifications to the definitions of ''semiconductor manufacturing'' and ''semiconductor manufacturing equipment'' under § 1.48D–2(n) and (o) of the final regulations. Accordingly, the definition of ''advanced manufacturing facility'' is revised in the final regulations by removing the term ''finished.'' Consistent with the revision to the definition of ''advanced manufacturing facility,'' the term ''finished'' is also removed from § 1.48D–4(b) and (c)(1) of the final regulations, for purposes of determining whether the primary purpose of a facility is the manufacturing of semiconductors or semiconductor manufacturing equipment.

Commenters requested that the definition of an advanced manufacturing facility be modified to ensure that industrial gas and other equipment qualifies when co-located on an advanced manufacturing facility, and, similarly, clarify what constitutes an advanced manufacturing facility when multiple taxpayers place in service qualified property at the same facility. Commenters also requested that the final regulations define the term ''facility'' as a reasonably identifiable space, an amenity, a piece of equipment, or an assembly line that can be distinguished from an entire campus or building where multiple activities are performed and would allow for bifurcation of manufacturing campuses or within buildings where certain facilities may be leveraging the section 48D credit while other facilities may be leveraging a different tax incentive. One commenter requested that the final regulations define an advanced manufacturing facility consistent with the definition of qualified property integral to the operation of an advanced manufacturing facility in proposed § 1.48D–3(f). Another commenter requested that the final regulations provide that the definition of an advanced manufacturing facility include design facilities that are related to the semiconductor manufacturing process.

The Treasury Department and the IRS decline to adopt these recommendations by further modifying the definition of an ''advanced manufacturing facility'' or defining ''facility'' in the final regulations. Section 48D(b)(3) and § 1.48D–4(b) of the final regulations define an advanced manufacturing facility as a facility for which the primary purpose is the manufacturing of semiconductors or the manufacturing of semiconductor manufacturing equipment within the meaning of § 1.48D–2. Section 1.48D–2 defines the

terms semiconductor, semiconductor manufacturing, semiconductor manufacturing equipment, manufacturing of semiconductors, and manufacturing of semiconductor manufacturing equipment. Taken together, the statutory and regulatory provisions define what constitutes an advanced manufacturing facility for purposes of the section 48D credit. For these reasons, the final regulations do not include a separate definition of ''facility'' as requested by the commenters. The treatment of co-located property is addressed in section IV.A of this Summary of Comments and Explanation of Revisions.

B. Primary Purpose

Commenters requested that the final regulations include a minimum threshold that would satisfy the ''primary purpose'' requirement. In proposed § 1.48D–4(c)(3)(i) (Example 1), a taxpayer manufactures semiconductor manufacturing equipment that represents approximately 75 percent of the potential output of the taxpayer's facility by cost to produce such equipment. Section 1.48D–4(c)(3)(i) (*Example 1*) shows that the taxpayer satisfied the primary purpose test in proposed § 1.48D–4(c). Proposed § 1.48D–4(c)(3)(ii) (*Example 2*) reaches the same conclusion when the taxpayer manufactures certain microscopes for a semiconductor manufacturing facility and such equipment represents approximately 75 percent of the potential output (by cost) of the taxpayer's facility. Commenters requested that the final regulations state the minimum threshold that would satisfy the primary purpose test as more than 50 percent. One commenter requested that the final regulations specify the types of cost that should be considered in the output test and if research costs in connection with manufacturing semiconductor or semiconductor equipment should be considered in the numerator of output test. The commenter further requested that the regulations should clarify that the output capacity in the quantitative test should be measured at full life cycle instead of the year placed in service when the credit is determined. The commenter also requested that the threshold requirement rule be provided in the regulatory text. Another commenter requested that the final regulations include an example of a facility that does not meet the ''primary purpose'' requirement, especially for facilities that do not meet the 75 percent threshold.

The Treasury Department and the IRS have determined that the final regulations should include a minimum threshold that would satisfy the ''primary purpose'' requirement. Accordingly, § 1.48D–4(c)(1) of the final regulations provides that a minimum threshold of more than 50 percent by cost of production, revenue received in an arm's length transaction, or units produced satisfies the ''primary purpose'' requirement. Section 1.48D–4(c)(3) of the final regulations include examples illustrating the application of this rule, including examples involving semiconductor wafer production and a vertically integrated manufacturer. However, property placed in service in a taxable year must still meet the definition of qualified property under section 48D(b)(2) and § 1.48D–3 for its basis to be included as part of the qualified investment in the advanced manufacturing facility eligible for the section 48D credit. Specifying the types of cost that should be considered in the output test and the time period for the measurement would require a careful examination of all relevant facts and circumstances, any applicable Code sections and Federal income tax principles apart from those found in section 48D and the section 48D regulations. For these reasons, specifying the types of costs that should be considered and the time period for measurement is not appropriate for purposes of the final regulations.

One commenter requested that the words ''grows'' and ''grow wafers'' in proposed § 1.48D–4(c)(2) be removed in the final regulations if the definition of ''semiconductor'' is revised in the final regulations to include polysilicon, boules, wafers, and similar materials with electronic properties manufactured specifically for the purpose of semiconductor manufacturing. Another commenter requested that the final regulations clarify that ''primary purpose'' can include intermediate manufacturing steps or production of components for finished semiconductors. One commenter requested that the final regulations provide that, in the case of a vertically integrated company that manufactures semiconductors, property used in the crystal and boule growth be treated as property integral to the operation of an advanced manufacturing facility.

The Treasury Department and the IRS agree, in part, with commenters and the final regulations adopt, in part, the commenter's request for a modification to proposed § 1.48D–4(c)(2) by removing ''grows'' and ''grows wafers'' from the final regulations, and providing that primary purpose can include certain intermediate manufacturing steps to conform with the definition of ''semiconductor manufacturing'' in § 1.48D–2(n) of the final regulations. As previously described in section III.E. of this Summary of Comments and Explanation of Revisions, semiconductor wafer production includes the processes of growing single-crystal ingots and boules, as well as wafer slicing, bonding, etching and polishing, cleaning, epitaxial deposition, and metrology. Including property used in steps prior to growing single-crystal ingots and boules in the case of a vertically integrated semiconductor manufacturer is not consistent with the purpose and structure of the statute because the primary purpose of such property is not the manufacturing of semiconductors (as defined in § 1.48D–2(g) of the final regulations) or the manufacturing of semiconductor manufacturing equipment (as defined in § 1.48D–2(h) of the final regulations). Accordingly, the final regulations do not include such a rule for such vertically integrated businesses.

The final regulations provide examples to illustrate whether a facility has a primary purpose of manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment. The examples address whether the facility meets the primary purpose test in the taxable year the property is placed in service. Because the section 48D is an investment tax credit, and pursuant to § 1.46–3(d)(4), the investment credit is allowed in the taxable year the property is placed in service. In addition, the investment tax credit recapture rules under section 50(a) apply to the section 48D credit. If the property for which the section 48D credit is claimed ceases to be investment credit property (as defined in section 50(a)(6)(A)) with respect to the taxpayer before the close of the 5-year recapture period, then all or a portion of the section 48D credit is recaptured. If a taxpayer fails to meet the primary purpose test during any of the years during the 5-year recapture period, then the facility is no longer an advanced manufacturing facility, as defined in section 48D(b)(3) and the final regulations. The property the taxpayer placed in service to claim the section 48D credit is no longer qualified property under section 48D(b)(2)(A)(iv), because such property is no longer integral to the operation of an advanced manufacturing facility. Thus, the property has ceased to be investment credit property with respect to the taxpayer and, pursuant to section 50(a)(1)(A) and (B), all or a portion of

the section 48D credit claimed is recaptured.

VI. Comments on and Changes to Proposed § 1.48D–5

A. Definition of Single Advanced Manufacturing Facility Project

Commenters requested that the final regulations expand the list of items of property that may be treated as a single item for purposes of the beginning of construction rules to include ''tooling equipment'' and ''semiconductor manufacturing equipment.'' The list in proposed § 1.48D–5(a)(3) is non-exclusive. However, the Treasury Department and the IRS have determined that a clarification is appropriate to clarify that ''tooling equipment'' and ''semiconductor manufacturing equipment'' can be treated as a single item for purposes of the beginning of construction. Accordingly, § 1.48D–5(a)(3)(i) of the final regulations is revised to include ''tooling equipment'' and ''semiconductor manufacturing equipment.''

Commenters requested that the final regulations establish a safe harbor for satisfying the single advanced manufacturing facility project determination if a taxpayer meets at least four of the factors listed under proposed § 1.48D–5(a)(3)(i). As noted in the Background section of this preamble, the final regulations primarily apply credit mechanics and procedures common to all investment credits. It is therefore appropriate for purposes of section 48D to provide a single project test similar to the test provided in other recent guidance applicable to investment credits. Accordingly, § 1.48D–5(a)(3)(i) of the final regulations provides that multiple properties or facilities will be treated as a single project if, at any point during construction of the multiple properties or facilities, they are owned by a single taxpayer (subject to the related taxpayer rule discussed later in this section of this Summary of Comments and Explanation of Revisions), and any two or more of the factors listed in § 1.48D–5(a)(3)(i) are met. Under § 1.48D–5(a)(3)(ii) of the final regulations, related taxpayers would be treated as one taxpayer in determining whether multiple facilities or properties are treated as a single project. Related taxpayers would be defined as members of a group of trades or businesses that are under common control (as defined in § 1.52–1(b)).

Commenters also requested that the final regulations modify proposed § 1.48D–5(a)(3)(i)(F) by changing ''single master construction contract'' to a ''single master construction plan,'' and add a new factor based on whether the properties or facilities achieve efficiencies and economies of scale through shared semiconductor manufacturing resources. However, planning and designing are generally regarded as preliminary activities that would not satisfy the Physical Work Test, and treating multiple items of qualified property as a single item based on a ''construction plan'' as opposed to a ''construction contract'' would not inform whether construction has begun for purposes of section 48D. Including a factor based on whether the properties or facilities achieve efficiencies and economies of scale through shared semiconductor manufacturing resources would inject significant complexity into the final regulations and likely cause additional uncertainty regarding the scope of the term ''single advanced manufacturing facility project'' due to its inherently factual nature. Accordingly, the final regulations do not incorporate the commenters' recommendations.

One commenter requested that the final regulations clarify the disaggregation of a single advanced manufacturing facility project under proposed § 1.48D–5(a)(3)(iv). The commenter requested that the final regulations clarify that the relevant facts and circumstances to satisfy the continuity requirement for disaggregated separate items of property or facilities should be the facts and circumstances from the time that the continuity safe harbor period ends until the property is placed in service. The Treasury Department and the IRS decline to adopt the recommendation because it would be inconsistent with the continuity requirement. Those disaggregated separate items of property or facilities were not placed in service prior to the continuity safe harbor deadline and therefore, the taxpayer is not deemed to satisfy the continuity requirement with respect to those items from the beginning of construction date through the end of the continuity safe harbor period. Accordingly, the final regulations do not incorporate the commenter's recommendation.

The commenter also requested that the final regulations address the time period for which the remaining disaggregated separate items of property or facilities may satisfy the continuity requirement under a facts and circumstances determination, pursuant to proposed § 1.48D–5(a)(3)(iv). The commenter recommended that the period start when physical work of a significant nature begins with respect to the disaggregated separate item of property rather than when construction began based on the single advanced manufacturing facility project. The commenter recommended that, alternatively, a continuous construction or continuous effort for any one item of property within the single advanced manufacturing facility project be attributed to all properties within the project to satisfy the continuity requirement. The Treasury Department and the IRS have determined that the relevant facts and circumstances determination in proposed § 1.48D–5(a)(3)(iv) is appropriate for determining whether a disaggregated separate item of property satisfies the continuity requirement. Accordingly, the final regulations do not incorporate the commenter's recommendation.

B. Beginning of Construction, In General

A commenter requested that the final regulation clarify whether a taxpayer applies the same test for all construction in progress at one contiguous location to determine whether construction began before December 31, 2026. Proposed § 1.48D–5(b)(1) provides that a taxpayer may establish that construction of an item of property (defined as a single advanced manufacturing facility project under proposed § 1.48D–5(a)(3), or an item of qualified property under proposed § 1.48D–3(b)) of a taxpayer begins under either the Physical Work Test or the Five Percent Safe Harbor. Thus, whether a taxpayer applies the same test for all construction in progress at one contiguous location depends on the unit of property being measured. For this reason, the Treasury Department and the IRS have determined that a clarification is not necessary.

C. Physical Work Test

Commenters requested that the final regulations include examples of on-site and off-site physical work of a significant nature specific to the semiconductor industry. One commenter recommended, at a minimum, including on-site activities such as excavation for the foundation of a facility, pouring concrete into a foundation of a facility, and installing underground utilities, and including off-site activities such as the acquisition of key systems, manufacture of components, mounting equipment, and constructing support structures such as steel trusses. The Treasury Department and the IRS have determined that including certain examples of on-site and off-site work to provide additional certainty to taxpayers is appropriate for determining whether physical work of a significant nature has occurred.

Accordingly, § 1.48D–5(c)(2) of the final regulations includes a non-exclusive list of examples of on-site and off-site activities, consistent with IRS guidance pertaining to beginning of construction.

D. Five Percent Safe Harbor

One commenter requested that a payment made by the taxpayer for property that is manufactured, constructed, or produced for the taxpayer by another person under a binding written contract but is not yet provided to the taxpayer and is not yet incurred by the other person is considered paid or incurred with respect to the taxpayer for purposes of the Five Percent Safe Harbor. As noted, the section 48D regulations primarily apply long-established credit mechanics and procedures common to all investment credits, including application of the principles of section 461. Therefore, the final regulations retain the rule set forth in proposed § 1.48D–5(d)(2).

E. Continuity Requirement

Commenters requested that the final regulations provide examples of the facts and circumstances that would support the conclusion that the taxpayer satisfied the continuity requirement. The Treasury Department and the IRS have determined that including an example of facts and circumstances that would support a particular factor being met under the continuity facts and circumstances test is appropriate for clarifying the continuity requirement in this context. Accordingly, the final regulations clarify that a taxpayer has met the factor of paying or incurring additional amounts included in the total cost of the property for a taxable year in which it pays or incurs (within the meaning of § 1.461–1(a)(1) and (2)) five percent or more of the total cost of the property each calendar year after the calendar year during which construction of the property began for purposes of section 48D and the section 48D regulations.

One commenter requested that the final regulations include ''industry downturns'' in the non-exclusive list of construction disruptions under proposed § 1.48D–5(e)(4)(iii). The commenter explained that the semiconductor industry is highly cyclical in nature and semiconductor companies typically reduce capital expenditures and delay on-going construction of new semiconductor facilities during industry downturns. The commenter recommended defining ''industry downturn'' as a 20 percent reduction to publicly traded stock value during the preceding 12-month period. The commenter also requested that the final regulations include a provision that Treasury may exercise its authority to identify per se construction disruptions in future guidance. The Treasury Department and the IRS decline to adopt these recommendations, but will consider whether future guidance, specific to any market and construction disruptions, is necessary, as needed.

A commenter requested that the final regulations modify the continuity safe harbor in proposed § 1.48D–5(e)(6) by creating a bright-line rule that all property placed in service before December 31, 2036, will be deemed to satisfy the continuity safe harbor. The commenter argued that the structure of a continuity safe harbor that measures from the beginning of construction, in the context of semiconductor manufacturing, creates an incentive to intentionally delay the beginning of construction date to as late in 2026 as possible to more closely align the time that construction begins to the beginning of the tolling of the 10-year safe harbor period. Section 48D(e) provides that a section 48D credit may not be claimed for property the construction of which begins after December 31, 2026. The March 2023 proposed regulations provide that a taxpayer can establish that construction of property has begun by meeting either the Physical Work Test or the Five Percent Safe Harbor. Under either test, a taxpayer must meet the Continuity Requirement by demonstrating continuous construction or continuous efforts based on the relevant facts and circumstances. In lieu of demonstrating continuous construction or continuous efforts, however, the taxpayer is deemed to satisfy the continuity requirement, under the continuity safe harbor, by placing the property in service within ten calendar years after the date that the Physical Work Test or the Five Percent Safe Harbor is first satisfied. Taxpayers are not obligated to satisfy the continuity safe harbor to meet the continuity requirement. For these reasons, the Treasury Department and the IRS decline to adopt the commenter's recommendation in the final regulations.

A commenter requested that the final regulations include a monetary safe harbor in which a taxpayer is deemed to satisfy the continuous construction test or continuous efforts test in the case an advanced manufacturing facility project if the taxpayer pays or incurs a certain dollar amount of the total cost of the property during each taxable year before the property is placed in service. Paying or incurring costs towards completion of a project is one of many factors that may indicate the continuity requirement is met. As such, the Treasury Department and the IRS decline to include an additional safe harbor in the final regulations that is solely dependent on the dollar amount of monetary spend in a given taxable year. However, as previously described, the final regulations clarify that a taxpayer has met the factor of paying or incurring additional amounts included in the total cost of the property for a taxable year in which it pays or incurs (within the meaning of § 1.461–1(a)(1) and (2)) five percent or more of the total cost of the property each calendar year after the calendar year during which construction of the property began.

VII. Comments on and Changes to Proposed § 1.50–2

A. Applicable Transaction

One commenter requested clarification of whether the term ''applicable transaction'' includes the expansion of manufacturing semiconductor manufacturing equipment in a foreign country of concern. Section 50(a)(6)(D) provides that ''applicable transaction'' means a ''significant transaction'' involving the material expansion of ''semiconductor manufacturing capacity'' in a foreign country of concern. Section 50(a)(6)(D) does not refer to manufacturing semiconductor manufacturing equipment. For that reason, the term ''applicable transaction'' does not include the expansion of manufacturing semiconductor manufacturing equipment in a foreign country of concern. Section 50(a)(6)(E), however, defines the term ''applicable taxpayer'' as any taxpayer who has been allowed a section 48D credit for any prior taxable year. Thus, a taxpayer that was allowed a section 48D credit for manufacturing semiconductor manufacturing equipment as defined in § 1.48D–2(g) of the final regulations is an ''applicable taxpayer'' for purposes of section 50(a)(3) and (a)(6)(D) and would be subject to recapture under those provisions if the taxpayer engaged in an ''applicable transaction'' involving the material expansion of semiconductor manufacturing in a foreign country of concern.

Commenters suggested that the final regulations provide that a transaction does not trigger recapture under section 50(a)(3) if such transaction does not trigger a clawback under an entity's required agreement with the Department of Commerce. Consistent with section 50(a)(6)(D), if a taxpayer enters into a required agreement with the Secretary

of Commerce, the final regulations define the term ''significant transaction'' to have the same meaning as provided in the required agreement for purposes of section 48D and the section 48D regulations.

B. Definition of Applicable Taxpayer

Several commenters requested that the final regulations treat only partners that actually claim a section 48D credit as an ''applicable taxpayer,'' as opposed to all partners in the partnership as required under proposed § 1.50–2(b)(2)(i)(C). Two of the commenters argued that activities undertaken outside the partnership by one partner should not trigger recapture of the section 48D credit claimed by another partner in the partnership. The Treasury Department and the IRS have determined that certain modifications are appropriate for defining ''applicable taxpayer'' in the context of qualified property owned by a partnership or S corporation. Accordingly, the final regulations retain the general definition of ''applicable taxpayer'' from proposed § 1.50–2(b)(2)(i)(A) and include special rules for partnerships and S corporations.

The final regulations clarify that in the case of property placed in service by a partnership, the term ''applicable taxpayer'' means any direct or indirect partner in a partnership: (1) who was allowed a section 48D credit for such property for any taxable year prior to when such partnership entered into an applicable transaction and includes such partnership; (2) with respect to the partner's share of any section 48D credit allowed for such property prior to when such partner entered into an applicable transaction; or (3) with respect to the partner's share of any tax-exempt income from a partnership that made an election under section 48D(d)(2) for any taxable year prior to when such partner entered into an applicable transaction. Consistent with proposed § 1.50–2(b)(2)(i)(B), the final regulations provide that the term ''applicable taxpayer'' means a partnership that made an election under section 48D(d)(2) for any taxable year prior to the taxable year in which the partnership entered into an applicable transaction. The final regulations include similar rules for S corporations and shareholders. The final regulations also include additional examples to clarify the application of the rules regarding the term ''applicable taxpayer.''

C. Significant Transactions in General and Certain Required Agreements Under Section 103(b) of the CHIPS Act

Section 50(a)(6)(D) requires that the meaning of the term ''significant transaction'' be determined by the Secretary in coordination with the Secretary of Commerce and the Secretary of Defense. Accordingly, the March 2023 proposed regulations defined the term ''significant transaction'' to align and harmonize the scope of applicable transactions under section 50(a)(3) with the scope of prohibited material expansion transactions within the meaning of proposed 15 CFR 231.121 (relating to the Prohibition on Certain Expansion Transactions) and included the definition of ''significant transaction'' in proposed 15 CFR 231.101 as contained in the Commerce Proposed Rule. However, unlike the Commerce Proposed Rule, the Commerce Final Rule does not include a definition of ''significant transaction.'' Rather, pursuant to section 103(b) of the CHIPS Act, what constitutes a ''significant transaction'' is to be defined in the required agreement entered into between a funding recipient and the Secretary of Commerce. Accordingly, the Treasury Department and the IRS (in coordination with the Secretary of Commerce and the Secretary of Defense) have determined that, consistent with section 50(a)(6)(D), the term ''significant transaction'' means either a ''significant transaction'' as that term is generally defined in § 1.50–2(b)(10)(i) of the final regulations, or, with respect to a taxpayer that has entered into a required agreement with the Secretary of Commerce, as the term ''significant transaction'' is defined in § 1.50–2(b)(10)(ii) of the final regulations, in the required agreement with the Department of Commerce. Consistent with the definition of ''significant transaction'' in § 1.50–2(b)(10)(ii) of the final regulations, the defined terms in the required agreement with the Department of Commerce control for purposes of determining the meaning of the term ''significant transaction.''

One commenter requested that the section 50(a)(3) and (a)(6)(D) recapture provisions and the Department of Commerce's award clawback rules should align the set of restrictions on transactions in foreign countries of concern to avoid disrupting ordinary business activities at existing legacy facilities, especially given the length of time of the advanced manufacturing investment credit recapture period. The Treasury Department and the IRS note that the final regulations harmonize the restrictions to the extent provided under the statute.

D. Definition of Significant Transaction

Several commenters requested modifications to the definition of ''significant transaction'' in the March 2023 proposed regulations. Some commenters requested the final regulations increase the $100,000 threshold for determining whether a transaction is a ''significant transaction.'' Commenters also requested that the final regulations explicitly state that transactions with a principal purpose of funding ordinary course operations (for example, payroll, rent and utilities, marketing and advertising, and similar items) are not considered significant.

In response to comments, the Treasury Department and the IRS are removing the monetary threshold for ''significant transaction'', and, instead, the revised definition focuses on the type of transaction that could result in material expansion. This approach is consistent with the intent of the recapture rule in section 50(a)(3). Accordingly, the definition of ''significant transaction'' has been modified to include (1) an investment, whether proposed, pending, or completed, including any capital expenditure, loan, or gift; (2) the formation of a subsidiary, whether classified as a corporation or partnership for Federal tax purposes; (3) a merger, acquisition, or takeover, including (a) the acquisition of a new or additional ownership interest in an entity, (b) the acquisition of a material portion of the assets of an entity, or (c) a consolidation; (4) the formation of a joint venture; or (5) a long-term lease or concession arrangement under which a lessee (or equivalent) makes substantially all business decisions concerning the operation of a leased entity (or equivalent), as if it were the owner. This definition, coupled with the revision to the definition of material expansion, would clarify that transactions with a principal purpose of funding ordinary course operations are not significant transactions.

One commenter requested that the final regulations eliminate the 85 percent rule under proposed § 1.50–2(b)(10)(iii) from the definition of ''significant transaction'' or replace it with a simpler metric based on the ratio of units an entity manufactures in a foreign country of concern to the units shipped into a foreign county of concern. Another commenter requested that the Treasury Department and the IRS coordinate with the Department of Commerce to finalize a single uniform

standard to identify what is a ''final product'' for purposes of proposed § 1.50–2(b)(10)(iii). The proposed definition of ''significant transaction'' was intended to align and harmonize with the scope of certain prohibited expansion transactions under the Commerce Proposed Rule, pursuant to the Secretary's authority under section 50(a)(6)(D)(i) to determine whether transactions are significant transactions. Accordingly, to maintain this alignment, the final regulations retain the 85 percent threshold in its consideration of whether certain production of legacy semiconductors ''predominately serves the market'' in a foreign country of concern. Because the meaning of the term ''predominately serves the market'' is intended to be consistent with the Commerce Final Rule, the Treasury Department and the IRS decline to interpret ''serves the market'' to refer to the location to which the semiconductors are first shipped.

Two commenters requested that the prohibition on technology licensing and joint research be removed from the definition of significant transaction, noting that the CHIPS Act does not refer to ''technology licensing.'' Several commenters suggested that the definition of ''technology licensing'' in proposed § 1.50–2(b)(11) is overly broad and could include general business operations, nondisclosure agreements, the discussion of products or technology, patents, trade secrets, know-how, intraparty transfer agreements, or arrangements operating under current export control authorization. The commenters requested that the final regulations narrow the definition to focus on the actual licensing of the technology or products that are subject to restrictions rather than just the discussion of products or technology. One commenter suggested that taxpayers and their affiliate will be required to review and possibly terminate pre-existing agreements based on the proposed definition.

Removing the prohibition on joint research or technology licensing agreements with a foreign entity of concern would allow a taxpayer to circumvent section 50(a)(3) and (a)(6)(D) through the use of joint research or technology licensing transactions. However, the Treasury Department and the IRS agree with the commenter's suggestions concerning the scope of the term ''technology licensing'' in the March 2023 proposed regulations given that the definition of ''technology licensing'' in the Commerce Final Rule was modified, consistent with these comments. Accordingly, the final regulations provide that the terms ''joint research'' and ''technology licensing'' have the same meaning as provided in 15 CFR 231.105 and 231.120, respectively.

One commenter stated that the affiliated group rule under proposed § 1.50–2(b)(10)(v) (establishing a 50 percent ownership test) is inconsistent with the reference in 15 U.S.C. 4652(a)(6)(C)(iii) to section 1504(a) of the Code. The Treasury Department and the IRS agree that the affiliated group rule is inconsistent with the reference in 15 U.S.C. 4652(a)(6)(C)(iii) to section 1504(a) and for that reason, the affiliate group rule has been removed from the final regulations.

E. Existing Facility

Commenters requested that the definition of an ''existing facility'' in proposed § 1.50–2(b)(5) be revised in the final regulations to clarify whether the term includes a facility undergoing production ramp-up and thus, on the date on which qualified property was placed in service, was not operating at full production level for which it was designed. One commenter requested that the final regulations clarify that upgrades and productivity improvements made to a facility during the ordinary course of business operations is not considered a significant renovation and the date for measuring semiconductor manufacturing capacity is the placed in service date as intended by the statute. The Treasury Department and the IRS have determined that only facilities built, equipped, and operating prior to a taxpayer placing in service qualified property as defined in section 48D(b)(2) and § 1.48D–3 are considered to be existing facilities. A facility that undergoes significant renovations as defined in § 1.50–2(b)(9) of the final regulations would no longer qualify as an existing facility. The final regulations do not require the existing facility to be operating at the semiconductor manufacturing capacity for which it was designed, as required by the March 2023 proposed regulations. As noted in section VII.G of this Summary of Comments and Explanation of Revisions, the final regulations modify the definition of a ''significant renovation'' to mean building new cleanroom space or adding a production line or other physical space to an existing facility, such that upgrades and productivity improvements made to a facility during the ordinary course of business operations would not be considered a significant renovation.

F. Material Expansion

Commenters requested that the definition of ''material expansion'' in proposed § 1.50–2(b)(7) be modified in the final regulations to allow for an increase of semiconductor manufacturing capacity greater than 5 percent. One commenter requested that the 5 percent increase in capacity be measured on an average basis over the course of a year. Commenters also requested that the final regulations provide a finite list specifying business activities, products and processes that constitute a material expansion of semiconductor manufacturing. The Treasury Department and the IRS have determined that raising the five percent threshold for allowable material expansions or measuring the five percent increase capacity on average over the course of a year would undermine the objective of the recapture rule under section 50(a)(3). The Treasury Department and the IRS have further determined that specifying business activities, products and process that constitute a material expansion of semiconductor manufacturing is consistent with the statute. Accordingly, the final regulations retain the five percent threshold and clarify that the increase in capacity is due to the addition of a cleanroom, production line or other physical space, or series of such additions during the applicable period. The final regulations clarify that the term ''material expansion'' includes any construction of a new facility for semiconductor manufacturing.

G. Significant Renovations and Semiconductor Manufacturing Capacity

Several commenters requested that the scope of the definition of ''significant renovation'' in proposed § 1.50–2(b)(9) be modified to encompass only new cleanroom construction, production space, increase in the square footage of an existing facility by a specified percentage, or actual output of the facility. The commenters argued that the March 2023 proposed regulations unnecessarily narrowed the scope of the exemption for legacy semiconductors as enacted, noting that the CHIPS Act does not include the term ''significant renovation.'' Some commenters also requested that the ten percent ceiling for increasing semiconductor manufacturing capacity be increased to fifteen percent. The commenters further requested that the final regulations clarify that an operating facility that has not yet reached its full capacity will be considered an ''existing facility.'' The Treasury Department and the IRS have

considered the commenters' suggestions and have determined that the ''significant renovation'' and ten percent threshold provisions are necessary to prevent a taxpayer from circumventing the recapture provisions of section 50(a)(3)(A) by engaging in a ''significant renovation'' of an ''existing facility.'' However, the Treasury Department and the IRS agree with the commenters that clarification is needed concerning what is the scope of a ''significant renovation.'' Accordingly, the final regulations retain the rules for a ''significant renovation'' of an existing facility but clarify that a ''significant renovation'' means building new cleanroom space or adding a production line or other physical space to an existing facility that, in the aggregate during the applicable period, increases semiconductor manufacturing capacity by 10 percent or more.

One commenter requested that the final regulations clarify that, with respect to a specific facility, a taxpayer's semiconductor manufacturing capacity is measured by taking into account both (i) the taxpayer's own semiconductor manufacturing capacity in that facility, and (ii) any semiconductor manufacturing capacity of another party to the extent the other party's operations are carried on for the benefit of the taxpayer. The commenter noted that semiconductor fabrication companies commonly outsource assembly and test work to third parties referred to as outsourced semiconductor assembly and test providers, or ''OSATs.'' The commenter further noted that semiconductor manufacturer may lease a portion of a facility in a foreign country of concern to an OSAT that performs assembly and test work for the benefit of the taxpayer within the same facility. One commenter, included as an attachment to its comments on the March 2023 proposed regulations, a letter that the commenter sent to the Department of Commerce concerning the Commerce Proposed Rule. The commenter requested that the Commerce Final Rule provide that semiconductor manufacturing capacity be measured in wafer starts per year, as opposed to wafer starts per month.

Consistent with the Commerce Final Rule in 15 CFR 231.117, the final regulations provide that semiconductor manufacturing capacity is appropriately measured in wafer starts per month not including OSAT production. Section 1.50–2(b)(8) of the final regulations include a rule for determining ''semiconductor manufacturing capacity'' in the case of semiconductor wafer production. The final regulations clarify that wafer production is measured in starts per month and in the case of a semiconductor wafer production facility that includes the processes of growing single-crystal ingots and boules, wafer slicing, etching and polishing, cleaning, epitaxial deposition, and metrology, manufacturing capacity is measured in wafer starts per month.

H. Technology or Product That Raises National Security Concerns

One commenter requested that the final regulations exclude from the definition of semiconductors critical to national security, any semiconductors that reduce carbon emissions because they enhance rather than reduce U.S. national security (specifically SiC power semiconductors). The Treasury Department and the IRS appreciate that the performance advantages offered by compound semiconductors over silicon semiconductors, such as wider bandgap, lower operating voltages, and higher electron mobility, are vital to many military applications. Moreover, the governments of some foreign countries of concern have identified compound semiconductors as a strategic emerging industry. They have set ambitious goals for acquisition and development of compound semiconductor technology and strive to become global leaders in the industry. However, while exports of certain semiconductors are not subject to national security or regional stability export controls, joint research, or technology licensing involving these products with foreign entities of concern can nevertheless pose a significant risk to national security. Taxpayers that claim a section 48D credit should not further that risk. For these reasons, the Treasury Department and the IRS decline to adopt the commenter's request.

I. Exception From the Definition of Applicable Transaction for the Manufacturing of Legacy Semiconductors

Several commenters requested that the final regulations specifically include assembly test manufacturing (ATM) that uses non-3D packaging in the definition of legacy semiconductor. The commenters argued that given that ATM is generally a back-end operation, with billions of pre-existing investments, it is appropriate for these operations to be viewed under the definition of legacy unless they specifically perform 3D integration. The Treasury Department and the IRS agree with the commenters' suggestion. Accordingly, the final regulations, consistent with 15 CFR 231.107, clarify that only semiconductors utilizing advanced 3D integration packaging such as by directly attaching one or more die or wafer, through silicon vias (TSV) or through mold vias (TMV), or other advanced methods are not considered to be legacy semiconductors.

Commenters requested that the final regulations conform the example of memory semiconductor under proposed § 1.50–2(c)(2)(ii) to current export controls. Section 50(a)(6)(D)(ii) provides that the exception for legacy semiconductors applies as defined in section 9902(a)(6) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, as amended by section 103 of the CHIPS Act. The example of a memory semiconductor in proposed § 1.50–2(c)(2)(ii) is consisted with the statutory definition of a legacy semiconductor. Accordingly, the Treasury Department and the IRS decline to revise the example of a memory semiconductor in the final regulations.

Commenters requested that what is considered a leading or ''legacy'' semiconductor should be adjusted over the course of a 10-year period and should be connected to authorization permitted under export control licensing. Proposed § 1.50–2(c)(2)(iii) includes among the definition of a ''legacy semiconductor'' a semiconductor identified by the Secretary of Commerce in a public notice issued under 15 U.S.C. 4652(a)(6)(A)(ii). The Secretary of Commerce is required, pursuant to 15 U.S.C. 4652(a)(6)(A)(ii), to update the definition of ''legacy semiconductor'' on a regular basis and at least every two years. Thus, the definition of what is considered a leading or legacy semiconductor will be adjusted over the course of a 10-year period, as the Secretary of Commerce deems appropriate as reflected in § 1.50–2(c)(2) of the final regulation.

One commenter requested that the final regulations provide that the exclusion of any technology from the definition of ''legacy semiconductor'' in the future pursuant to 15 U.S.C. 4652(a)(6)(A)(ii) be applied only prospectively and not to any transactions previously entered into. Section 50(a)(6)(D)(ii) provides that the exception for legacy semiconductors applies as defined in section 9902(a)(6) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, as amended by section 103 of the CHIPS Act. Section 103(b) of the CHIPS Act added 15 U.S.C. 4652(a)(6)(A)(ii) and requires the Secretary of Commerce, after public notice and an opportunity for comment and if applicable and necessary, to issue

a public notice identifying any additional semiconductor technology included in the meaning of the term ''legacy semiconductor'' on a regular basis, and at least every two years. The commenter's recommendation to apply only prospectively any technology excluded from the definition of ''legacy semiconductor'' by the Secretary of Commerce pursuant to 15 U.S.C. 4652(a)(6)(A)(ii) is beyond the application of sections 48D and 50 and the section 48D regulations. For that reason, the Treasury Department and the IRS decline to adopt the commenter's recommendation. One commenter requested that the final regulations modify the definition of legacy semiconductors that is of 28 nanometer generation or older under proposed § 1.50–2(c)(2)(i) by deleting the reference to gate length and including technologies using the planar transistor architecture that should be considered the same as 28 nanometer generation technology. The Treasury Department and the IRS decline to adopt the commenter's recommendation. The proposed definition of legacy semiconductor with respect to 28 nanometer generation technology is consistent with the CHIPS Act and accurately captures the definition of legacy semiconductors. The proposed definition also prevents a company from using or creating a derivation of their existing 28 nanometer technology for use in a foreign country of concern that is inconsistent with the kind of material expansion of semiconductor manufacturing the CHIPS Act seeks to constrain.

Several commenters requested that the final regulations narrow the exception under proposed § 1.50–2(c)(3)(iii) to ''advanced'' 3D packaging techniques, so that TSV and TMV are excluded from the definition of legacy semiconductor. In coordination with the Department of Commerce and the Department of Defense, the Treasury Department and the IRS have incorporated this recommendation in the final regulations. The Commerce Final Rule clarifies the meaning of the term ''legacy semiconductor'' with respect to a semiconductor wafer facility, a semiconductor fabrication facility, and a semiconductor packaging facility. Again, in coordination with the Department of Commerce and the Department of Defense, the Treasury Department and the IRS have incorporated this clarification in the final regulations.

The March 2023 proposed regulations provided a definition of ''legacy semiconductor'' that was identical to the definition in Commerce Proposed Rule. Consistent with section 50(a)(6)(D)(ii) of the Code and section 9902(a)(6) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, as amended by section 103 of the CHIPS Act, the final regulations define the term ''legacy semiconductor'' as having the same meaning as that term is defined in the Commerce Final Rule, 15 CFR 231.107.

J. Standards for Determining the Satisfaction of the Commissioner

Commenters requested that the final regulations include standards for establishing what is considered to be to ''the satisfaction of the Secretary'' or ''the satisfaction of the Commissioner'' for purposes of section 50(a)(3)(B) and proposed § 1.50–2(a)(2), respectively. Commenters suggested that the final regulations address how a taxpayer may demonstrate cessation or abandonment of a project, and further suggested that those actions could include proof of cancelled contracts, the withdrawal or cancellation of work permits, a board resolution that expressly cancels the applicable transaction, or the issuance of a public statement that expressly cancels the applicable transaction. Commenters also suggested that final regulations include a non-exhaustive list of documents that can be used to establish cessation or abandonment of a project. The Treasury Department and the IRS have determined that the rules suggested by the commenters, as well as similar provisions, would likely cause additional uncertainty regarding the scope of the term ''to the satisfaction of the Commissioner'' due to its inherently factual nature. As a result, the final regulations do not incorporate the commenters recommendations.

K. Records Retention

The Treasury Department and the IRS requested comments on the ability of applicable taxpayers to comply with potential record keeping requirements in addition to those required by current law and on what specific procedures should be considered to ensure that the IRS has sufficient information to determine whether an applicable taxpayer engages in an applicable transaction within the meaning of section 50(a)(3) and proposed § 1.50–2. Several commenters suggested that any record retention should be limited to records obtained in the ordinary course of business. Another commenter suggested the IRS could include a form or attachment to annual tax returns with basic questions for the IRS to ascertain whether an applicable taxpayer may have engaged in an applicable transaction during the taxable year. Section 50(a)(3)(C) provides that the Secretary shall issue regulations or other guidance as the Secretary determines necessary or appropriate to carry out the purposes of section 50(a)(3), including regulations or other guidance which provides for requirements for recordkeeping or information reporting for purposes of administering the requirements of section 50(a)(3). The Treasury Department and the IRS have determined that records retained in a taxpayer's ordinary course of business, and as required under current applicable periods of limitations under section 6501 of the Code on assessment and collection of tax under chapter 1 with respect to the applicable taxpayer's return filed for the taxable year that includes the close of the 10-year period beginning on the date such taxpayer placed in service investment credit property that is eligible for the section 48D credit, are sufficient. Accordingly, the final regulations do not incorporate any additional record keeping requirements.

Some commenters requested that the final regulations provide for more of an alignment of the section 48D credit requirements and the Department of Commerce grant regulatory requirements including standardizing the same 10-year recapture or clawback period and streamline reporting and recordkeeping requirements. The commenters also requested that responsibility for administering the various overlapping rules and taxpayer notification requirements be delegated to a single agency or an interagency body. Section 50(a)(3) provides for recapture of the section 48D credit if there is an applicable transaction by an applicable taxpayer before the close of the ten-year period beginning on the date such property placed in service. Pursuant to 15 U.S.C. 4652(a)(6)(C)(i), the Commerce Final Rule, 15 CFR 231.202, provides that the 10-year period for the Expansion Clawback begins on the date of the award of Federal financial assistance under 15 U.S.C. 4652. The preamble to the Commerce Final Rule clarifies that the applicable term for the technology clawback (15 CFR 231.203) is defined in the relevant award documents. Pursuant to the relevant statutes, the recapture period for a section 48D credit begins on the date the qualified property is placed in service, and the Expansion Clawback and technology clawback periods begin on the date of the award of financial assistance and as defined in the award documents, respectively. For this

reason, aligning the recapture period with the clawback period would be inconsistent with section 50(a)(3)(A).

Section 50(a)(6)(D)(i) requires that the Secretary (in coordination with the Secretary of Commerce and the Secretary of Defense) define the term ''significant transaction'' for purposes of section 50. Consistent with the statutory directive in section 50(a)(6)(D)(i), § 1.50–2(b)(10) of the final regulations defines the term ''significant transaction'' as determined by the Treasury Department and the IRS in coordination with the Department of Commerce and the Department of Defense. Treasury regulations that otherwise would align or streamline the reporting and recordkeeping requirements or delegate the administrative functions to a single agency or interagency body are beyond the scope of the statute.

L. Private Letter Rulings

Commenters requested that the IRS grant private letter rulings or other determinations on the beginning of construction, effective date, costs, and or other matters relevant to section 48D. Consistent with guidance published in the Internal Revenue Bulletin, the IRS ordinarily will not issue private letter rulings to a taxpayer regarding the beginning of construction requirement under section 48D with respect to property placed in service after these final regulations are published in the **Federal Register**. In addition, the IRS may decline to issue a letter ruling or a determination letter when appropriate in the interest of sound tax administration, including due to resource constraints, or on other grounds whenever warranted by the facts or circumstances of a particular case.

Applicability Date

The final regulations set forth in §§ 1.48D–1 through 1.48D–5, and 1.50–2 apply to property that is placed in service after December 31, 2022, and during a taxable year ending on or after October 23, 2024.

Special Analyses

I. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520) (PRA) generally requires that a Federal agency obtain the approval of the Office of Management and Budget (OMB) before collecting information from the public, whether such collection of information is mandatory, voluntary, or required to obtain or retain a benefit. A Federal agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid control number.

This regulation mentions elections that are made in accordance with section 48D(d)(1) and (d)(2) of the Code and § 1.46–5 of the Treasury Regulations. These elections are made with Form 3468, *Investment Credit,* which are already approved by the OMB under 1545–0074 for individual/sole proprietor filers, 1545–0123 for business filers, and 1545–0155 for trust and estate filers. This regulation is not changing those election requirements; and is not telling taxpayers to make these elections but explaining their treatment for the credit if they have made these elections.

This regulation also describes recapture of the advanced manufacturing investment credit in the case of certain expansions, as detailed in § 1.50–2(a). The reporting of the recapture event will still be required to be reported using Form 4255, *Recapture of Investment Credit.* This form is approved under OMB control numbers 1545–0074 for individuals/sole proprietors, 1545–0123 for business entities, and 1545–0166 for trust and estate filers. The final regulation is not changing or creating new collection requirements not already approved by OMB on Form 4255.

This regulation includes recordkeeping requirements outlined in § 1.50–2 for recording transactions, investments, facilities information, and agreements with the Department of Commerce. The IRS expects that these records are usual and customary business records; however, the taxpayers will need to keep these records as long as they are admissible by the statute, typically for 10 years. Therefore, the IRS is considering these to be general tax records under § 1.6001–1. These records are required for the IRS to validate that the taxpayers have met the regulatory requirements; and are required as proof that the taxpayer has not engaged in an applicable transaction or that the taxpayer has ceased or abandoned the applicable transaction within 45 days of a determination and notice by the Commissioner, pursuant to section 50(a)(3). For PRA purposes, general tax records are already approved by OMB under 1545–0074 for individual/sole proprietor filers, 1545–0123 for business filers, and 1545–0092 for trust and estate filers.

II. Regulatory Flexibility Act

The Treasury Department and the IRS determined the rule will not have a significant economic impact on a substantial number of small entities. Although the rules affect small entities, data are not readily available about the number of taxpayers affected. Section 48D affects the semiconductor manufacturing industry, and specifically, individuals and entities that make qualified investments in facilities engaged in the manufacturing of semiconductors and semiconductor manufacturing equipment. The economic impact of these regulations is not likely to be significant, because the regulations substantially incorporate statutory changes by the CHIPS Act in establishing section 48D and amending section 50(a). The regulations will also make it easier for taxpayers to comply with section 48D and the changes to section 50(a). Pursuant to the RFA (5 U.S.C. chapter 6), the Secretary hereby certifies that these regulations will not have a significant economic impact on a substantial number of small entities.

Pursuant to section 7805(f), the notice of proposed rulemaking has been submitted to the Chief Counsel for the Office of Advocacy of the Small Business Administration for comment on its impact on small business. The Chief Counsel for the Office of Advocacy of the SBA did not provide any comments on the March 2023 proposed regulations.

III. Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 (UMRA) requires that agencies assess anticipated costs and benefits and take certain other actions before issuing a final rule that includes any Federal mandate that may result in expenditures in any one year by a State, local, or Tribal government, in the aggregate, or by the private sector, of $100 million (updated annually for inflation). This rule does not include any Federal mandate that may result in expenditures by State, local, or Tribal governments, or by the private sector in excess of that threshold.

IV. Executive Order 13132: Federalism

Executive Order 13132 (Federalism) prohibits an agency from publishing any rule that has federalism implications if the rule either imposes substantial, direct compliance costs on State and local governments, and is not required by statute, or preempts State law, unless the agency meets the consultation and funding requirements of section 6 of the Executive order. This rule does not have federalism implications and does not impose substantial direct compliance costs on State and local governments or preempt State law within the meaning of the Executive order.

V. Regulatory Planning and Review

Pursuant to the Memorandum of Agreement, Review of Treasury Regulations under Executive Order 12866 (June 9, 2023), tax regulatory actions issued by the IRS are not subject to the requirements of section 6 of Executive Order 12866, as amended. Therefore, a regulatory impact assessment is not required.

VI. Congressional Review Act

Pursuant to the Congressional Review Act (5 U.S.C. 801 *et seq.*), the Office of Information and Regulatory Affairs has designated this rule as a major rule as defined by 5 U.S.C. 804(2).

Statement of Availability of IRS Documents

Guidance cited in this preamble is published in the Internal Revenue Bulletin and is available from the Superintendent of Documents, U.S. Government Publishing Office, Washington, DC 20402, or by visiting the IRS website at *https://www.irs.gov.*

Drafting Information

The principal author of these final regulations is Lani Sinfield, Office of the Associate Chief Counsel (Passthroughs and Special Industries), IRS. However, other personnel from the Treasury Department and the IRS participated in their development.

List of Subjects in 26 CFR Part 1

Income taxes, Reporting and recordkeeping requirements.

Amendments to the Regulations

Accordingly, the 26 CFR part 1 is amended as follows:

PART 1—INCOME TAXES

■ **Paragraph 1.** The authority citation for part 1 is amended by adding an entry, in numerical order, for § 1.50–2 to read in part as follows:

Authority: 26 U.S.C. 7805 * * *

* * * * *

Section 1.50–2 also issued under 26 U.S.C. 50(a)(3)(C), and 50(a)(6).

* * * * *

■ **Par. 2.** Section 1.48D–0 is revised to read as follows:

§ 1.48D–0 Table of contents.

This section lists the table of contents for §§ 1.48D–1 through 1.48D–6.

■ **Par. 3.** Sections 1.48D–1 through 1.48D–5 are added to read as follows:

Sec.

§ 1.48D–1 Advanced manufacturing investment credit determined.

(a) *Overview.* For purposes of section 46 of the Code, the amount of the advanced manufacturing investment credit under section 48D of the Code determined for any taxable year is the amount determined under section 48D and this section and §§ 1.48D–2 through 1.48D–6 and 1.50–2 (the section 48D regulations) (subject to any applicable provisions of the Code that may limit the amount determined under section 48D), for such taxable year with respect to any advanced manufacturing facility of an eligible taxpayer. Paragraph (b) of this section provides the general rules for determining the amount of a taxpayer's section 48D credit for a taxable year. Paragraph (c) of this section provides rules coordinating the section 48D credit with the rules of section 47 of the Code (relating to the rehabilitation credit). Section 1.48D–2 provides definitions that apply for purposes of section 48D and the section 48D regulations. Section 1.48D–3 provides rules relating to the definition of qualified property for purposes of the section 48D credit. Section 1.48D–4 provides rules relating to the definition of an advanced manufacturing facility of an eligible taxpayer for purposes of the section 48D credit. Section 1.48D–5 provides rules regarding the beginning of construction of property for purposes of the section 48D credit. Section 1.48D–6 provides rules related to the elective payment election of the section 48D credit. *See* § 1.50–2 for additional rules under section 50(a)(3) and (6) of the Code relating to applicable transactions that result in the recapture of section 48D credits.

(b) *Determination of credit.* Subject to any applicable sections of the Code that may limit the credit determined under section 48D, the section 48D credit for any taxable year of an eligible taxpayer with respect to any advanced manufacturing facility is an amount equal to 25 percent of the taxpayer's qualified investment for the taxable year with respect to that advanced manufacturing facility. A section 48D credit is available only with respect to qualified property that a taxpayer places in service after December 31, 2022, and, for any qualified property the construction of which began prior to January 1, 2023, only to the extent of the basis of that property attributable to the construction, reconstruction, or erection of that property occurring after August 9, 2022. Under section 48D(e), no section 48D credit is allowed to a taxpayer for placing qualified property in service in any taxable year if the beginning of construction of that qualified property as determined under § 1.48D–5 begins after December 31, 2026 (the date specified in section 48D(e)).

(c) *Coordination with section 47*—(1) *In general.* The qualified investment with respect to any advanced manufacturing facility of an eligible taxpayer for any taxable year does not include that portion of the basis of any property that is attributable to qualified rehabilitation expenditures, as defined in section 47(c)(2) and § 1.48–12(c), with respect to a qualified rehabilitated building, as defined in section 47(c)(1) and § 1.48–12(b).

(2) *Example: Coordination with section 47.* X Corp, a calendar-year C corporation, owns Building A, a certified historic structure. X Corp's adjusted basis in Building A is $100,000. Between August 1, 2024, and October 31, 2024, X Corp incurs $1 million to reconstruct, within the meaning of section 48D(b)(2)(A)(iii)(I) and § 1.48–12(b)(2)(iv), Building A. X Corp places the reconstructed Building A, a qualified rehabilitated building, in service on November 15, 2024. Of the $1 million of capitalized expenditures incurred to reconstruct Building A (all of which would meet the definition of qualified investment), $250,000 also meets the definition of qualified rehabilitation expenditures (QREs). As such, X Corp's qualified investment in Building A is $750,000 ($1 million − $250,000). X Corp's qualified investment in Building A remains $750,000 even if X Corp does not determine a rehabilitation credit with respect to the $250,000 of QREs.

(d) *Applicability date.* This section applies to property that is placed in service after December 31, 2022, and during a taxable year ending on or after October 23, 2024.

§ 1.48D–2 Definitions.

(a) *In general.* The definitions in paragraphs (b) through (o) of this section apply for purposes of sections 48D and 50 of the Code and § 1.48D–1, this section and §§ 1.48D–3 through 1.48D–6 and 1.50–2 (the section 48D regulations).

(b) *Applicable transaction.* The term *applicable transaction* has the meaning provided in section 50(a)(6) and § 1.50–2.

(c) *Basis*—(1) *In general.* With respect to any qualified property, the term *basis* has the same meaning as provided in § 1.46–3(c). Thus, the basis of the qualified property generally is determined in accordance with the general rules of subtitle A for determining the basis of property (see subtitle A, subchapter O, part II of the Code). As such, the basis of qualified property would generally be the cost of that qualified property (*see* section 1012 of the Code) unreduced by any adjustments to basis and would include all items properly included by the taxpayer in the depreciable basis of the qualified property.

(2) *Transition rule.* For property the construction of which began prior to January 1, 2023, and is placed in service after December 31, 2022, the portion of the basis of such property attributable to construction, reconstruction, or erection after August 9, 2022, must be allocated using any reasonable method, including by applying the principles of section 461 of the Code. Rules similar to the rules in §§ 1.48–2(b)(2), 1.48–11(b)(5)(i), and 1.48–12(c)(1) are applicable.

(d) *Beginning of construction.* The term *beginning of construction* has the meaning provided in § 1.48D–5.

(e) *Eligible taxpayer.* The term *eligible taxpayer* means any taxpayer that—

(1) Is not a foreign entity of concern; and

(2) Has not made an applicable transaction during the taxable year.

(f) *Foreign entities*—(1) *Foreign entity.* The term *foreign entity* has the same meaning as provided in 15 CFR 231.103.

(2) *Foreign entity of concern.* The term *foreign entity of concern* has the same meaning as provided in 15 CFR 231.104.

(g) *Manufacturing of semiconductors.* The term *manufacturing of semiconductors* and the term *semiconductor manufacturing* are synonymous.

(h) *Manufacturing of semiconductor manufacturing equipment.* The term *manufacturing of semiconductor manufacturing equipment* means the physical production (in a manufacturing facility) of semiconductor manufacturing equipment, which is used by an advanced manufacturing facility engaged in the manufacturing of semiconductors as defined in paragraph (g) of this section.

(i) *Placed in service.* The term *placed in service* has the same meaning as provided in § 1.46–3(d).

(j) *Qualified investment*—(1) *In general.* Except as provided in paragraph (j)(2) and (3) of this section, the term *qualified investment* with respect to an advanced manufacturing facility means, for any taxable year, the basis of any qualified property that is part of an advanced manufacturing facility and placed in service by the taxpayer during the taxable year.

(2) *Special rules for certain passthrough entities.* In the case of any qualified property that is part of an advanced manufacturing facility of an eligible taxpayer and placed in service by an entity described in paragraphs (j)(2)(i) through (iii) of this section during a taxable year, the rules of this paragraph (j)(2) apply to determine the qualified investment for the taxable year with respect to the advanced manufacturing facility.

(i) *Partnership.* In the case of a partnership that places in service qualified property that is part of an advanced manufacturing facility of an eligible taxpayer, each partner in the partnership must take into account separately the partner's share of the basis of the qualified property placed in service by the partnership during the taxable year as provided in § 1.46–3(f).

(ii) *S corporation.* The basis of qualified property that is part of an advanced manufacturing facility of an eligible taxpayer and placed in service during the taxable year by an S corporation (as defined in section 1361(a) of the Code) must be apportioned pro rata among the S corporation's shareholders on the last day of the S corporation's taxable year as provided in section 1366.

(iii) *Estate or trust.* The basis of qualified property that is part of an advanced manufacturing facility of an eligible taxpayer and placed in service during the taxable year by an estate or trust must be apportioned among the estate or trust and its beneficiaries on the basis of the income of the estate or trust allocable to each for that taxable year.

(3) *Qualified progress expenditures election*—(i) *In general.* A taxpayer may elect, as provided in § 1.46–5, to increase the qualified investment with respect to any advanced manufacturing facility of an eligible taxpayer for the taxable year, by any qualified progress expenditures made after August 9, 2022.

(ii) *Special rules for certain passthrough entities.* Notwithstanding the provisions of § 1.46–5, relating to elections of progress expenditure property being constructed by or for a partnership or S corporation, the rules of § 1.46–5(o)(1) and (p) do not apply to prohibit a partnership or S corporation from making a progress expenditure election under § 1.46–5 with respect to qualified property if the partnership or S corporation intends to make an elective payment election under section 48D(d) and § 1.48D–6 with respect to a section 48D credit determined with respect to such qualified property.

(4) *Examples.* The provisions of this paragraph (j) are illustrated by the following examples.

(i) *Example 1: Advanced manufacturing investment credit: qualified investment in general.* On November 1, 2024, X, a calendar-year C corporation, places in service qualified property with a basis of $200,000, and on December 1, 2024, X places in service qualified property with a basis of $300,000. X's qualified investment for the taxable year is $500,000 ($200,000 + $300,000).

(ii) *Example 2: Advanced manufacturing investment credit: qualified investment for partnerships.* A, B, C, and D, all calendar-year C corporations, are partners in the ABCD partnership. Partners A, B, C, and D share partnership profits equally. On November 1, 2024, the ABCD partnership placed in service qualified property with a basis of $1 million. Each partner's share of the basis of the qualified property, as determined in § 1.46–3(f)(2), is $250,000 ($1m × 0.25) and each partner's qualified investment is $250,000.

(k) *Section 48D credit.* The term *section 48D credit* means the advanced manufacturing investment credit determined under section 48D and the section 48D regulations.

(l) *Section 48D regulations.* The term *section 48D regulations* means §§ 1.48D–1 through 1.48D–6 and 1.50–2.

(m) *Semiconductor.* The term *semiconductor* means, consistent with 15 CFR 231.115, an integrated electronic device or system most commonly manufactured using materials such as, but not limited to, silicon, silicon carbide, or III–V compounds, and processes such as, but not limited to, lithography, deposition, and etching. Such devices and systems include, but are not limited to, analog and digital electronics, power electronics, and photonics, for memory, processing, sensing, actuation, and communications applications.

(n) *Semiconductor manufacturing.* The term *semiconductor manufacturing* and the term *manufacturing of semiconductors* are synonymous and mean, consistent with 15 CFR 231.116, semiconductor wafer production, semiconductor fabrication, or semiconductor packaging. The following terms have the following

meanings in connection with semiconductor wafer production, semiconductor fabrication, and semiconductor packaging for purposes of section 48D and the section 48D regulations:

(1) *Semiconductor wafer production* includes the processes of growing single-crystal ingots and boules, wafer slicing, etching and polishing, bonding, cleaning, epitaxial deposition, and metrology.

(2) *Semiconductor fabrication* includes the process of forming devices such as transistors, poly capacitors, non-metal resistors, and diodes, as well as interconnects between such devices, on a wafer of semiconductor material.

(3) *Semiconductor packaging* means the process of enclosing a semiconductor in a protective container (package) and providing external power and signal connectivity for the assembled integrated circuit and includes the process of assembly and testing of semiconductors and advanced packaging of semiconductors.

(4) *Assembly* includes, but is not limited to, wafer-dicing, die-bonding, wire bonding, solder bumping, and encapsulation.

(5) *Testing* includes, but is not limited to, probing, screening, and burn-in work.

(6) *Advanced packaging* means a subset of packaging technologies that uses novel techniques and materials to increase the performance, power, modularity, and/or durability of an integrated circuit. Advanced packaging technologies include flip-chip, 2D, 2.5D, and 3D stacking, fan-out and fan-in, and embedded die/system-in-package (SiP).

(o) *Semiconductor manufacturing equipment.* The term *semiconductor manufacturing equipment* means the highly engineered and specialized equipment used in the manufacturing of semiconductors as defined in paragraph (g) of this section and the subsystems that enable or are incorporated into the manufacturing equipment. Specific examples of semiconductor manufacturing equipment and subsystems that enable semiconductor manufacturing equipment include but are not limited to:

(1) Deposition equipment, including, Chemical Vapor Deposition (CVD), Physical Vapor Deposition (PVD), Electrodeposition, and Atomic Layer Deposition (ALD);

(2) Etching equipment (wet etch, dry etch);

(3) Equipment for epitaxial growth of transistor features;

(4) Chemical-mechanical polishing equipment to planarize layers through the semiconductor fabrication process;

(5) Lithography equipment (steppers and scanners of various light wavelengths, such as deep UV, extreme ultraviolet (EUV), photoresist coating, and developer tracks);

(6) Equipment for producing ingots and boules, wafer growth equipment, wafer slicing equipment, wafer dicing equipment, and wire bonders;

(7) Inspection and measuring equipment, including scanning electron microscopes, atomic force microscopes, optical inspection systems, wafer probes and optical scatterometer, EDS (Energy Dispersive Spectroscopy);

(8) Certain metrology and inspection systems to measure critical dimensions of the integrated circuit features throughout the fabrication process, detection and measurement of defects on the wafers during the fabrication process;

(9) Ion implantation and diffusion/oxidation furnaces;

(10) Specialty glass components including EUV mirrors and optical pathways, lenses and mirrors used in inspection equipment and other fabrication processes, and lens assemblies for wafer defect inspection;

(11) Electrostatic chucks;

(12) High performance pumps;

(13) High purity quartz devices;

(14) Ultra-high vacuum chamber components; and

(15) Photomasks and light sources used in photolithography.

(p) *Statutory references*—(1) *Chapter 1.* The term *chapter 1* means chapter 1 of the Code.

(2) *Code.* The term *Code* means the Internal Revenue Code.

(3) *Subtitle A.* The term *subtitle A* means subtitle A of the Code.

(q) *Applicability date.* This section applies to property that is placed in service after December 31, 2022, and during a taxable year ending on or after October 23, 2024.

§ 1.48D–3 Qualified property.

(a) *In general.* This section provides definitions and rules relating to qualified property for purposes of section 48D of the Code and the section 48D regulations.

(b) *Qualified property.* The term *qualified property* means tangible depreciable property that is part of, and integral to, the operation of an advanced manufacturing facility and that is either—

(1) Constructed, reconstructed, or erected by the taxpayer; or

(2) Acquired by the taxpayer if the original use of such property commences with the taxpayer.

(c) *Tangible depreciable property*—(1) *In general.* The term *tangible depreciable property* means tangible personal property (as defined in § 1.48–1(c)), other tangible property (as defined in § 1.48–1(d)), and building and structural components (as defined in § 1.48–1(e), except as provided in paragraphs (c)(2) and (3) of this section) with respect to which depreciation (or amortization in lieu of depreciation) is allowable. The law of a State or local jurisdiction is not controlling for purposes of determining whether property is tangible property for purposes of section 48D or the section 48D regulations.

(2) *Exception.* Pursuant to section 48D(b)(2)(B)(ii), except as provided in paragraph (c)(3) of this section, the term *tangible depreciable property* does not include a building and its structural components, or a portion thereof, used for—

(i) Offices;

(ii) Administrative services such as human resources or personnel services, payroll services, legal and accounting services, and procurement services;

(iii) Sales or distribution functions;

(iv) Security services (not including cybersecurity operations); or

(v) Any other functions unrelated to manufacturing of semiconductors or semiconductor manufacturing equipment.

(3) *Buildings or portions of a building not excluded by section 48D(b)(2)(B)(ii).* Buildings or portions of a building not treated as offices and that are considered related to manufacturing of semiconductors or semiconductor manufacturing equipment include buildings or portions of a building used for:

(i) Gowning to enter to and from a cleanroom environment;

(ii) Monitoring operations and remote access of equipment;

(iii) Functions performed by unit process engineers including developing, monitoring, updating and overseeing individual process recipes running on every tool in the facility to manufacture, measure and test wafers including access to relevant data, data analysis, modifications and updates to the process recipes on the tools;

(iv) Functions performed by equipment engineers including overseeing tools to ensure proper operation by accessing data about the tool health and performance remotely adjusting the tool at workstations, and issuing work orders to the equipment and maintenance technicians from the workstations;

(v) Functions performed by test engineers including monitoring the electrical test data being collected from

the wafers at certain points in their processing;

(vi) Functions performed by yield and defect engineers including reviewing inspection data collected from wafers;

(vii) Functions performed by metrology engineers including reviewing physical measurement data collected from the wafers;

(viii) Functions performed by integration engineers that are responsible for the technology node and the end-to-end wafer process;

(ix) Functions performed by facilities engineers including monitoring and controlling facilities systems; and

(x) Functions related to central utilities buildings, material handling and ultrapure water generation facilities, and computing (data center).

(d) *Constructed, reconstructed, or erected by the taxpayer.* Property is considered constructed, reconstructed, or erected by the taxpayer if the work is done for the benefit of the taxpayer in accordance with the taxpayer's specifications.

(e) *Original use*—(1) *In general.* Except as provided in paragraph (e)(2) of this section, the term *original use* means with respect to any property the first use to which the property is put by any taxpayer in connection with a trade or business or for the production of income. Additional capital expenditures paid or incurred by a taxpayer to recondition or rebuild property acquired or owned by the taxpayer satisfy the original use requirement to the extent of the expenditures paid or incurred by a taxpayer. However, a taxpayer's cost to acquire property reconditioned or rebuilt by another taxpayer does not satisfy the original use requirement. Whether property is reconditioned or rebuilt property will be determined based on the facts and circumstances.

(2) *Treatment of inventory.* For purposes of paragraph (e)(1) of this section, if a taxpayer initially acquires new property and holds the property primarily for sale to customers in the ordinary course of the taxpayer's trade or business and subsequently withdraws the property from inventory and uses the property primarily in the taxpayer's trade or business or primarily for the taxpayer's production of income, the taxpayer is considered the original user of the property. If a person initially acquires new property and holds the property primarily for sale to customers in the ordinary course of the person's business and a taxpayer subsequently acquires the property from the person for use primarily in the taxpayer's trade or business or primarily for the taxpayer's production of income, the taxpayer is considered the original user of the property. For purposes of this paragraph (e), the original use of the property by the taxpayer commences on the date on which the taxpayer first uses the property primarily in the taxpayer's trade or business or primarily for the taxpayer's production of income.

(f) *Part of an advanced manufacturing facility*—(1) *In general.* To qualify for the section 48D credit, property must be part of the advanced manufacturing facility, as provided in this paragraph (f). Property is part of an advanced manufacturing facility if the property is physically located or co-located either at the advanced manufacturing facility, or on a contiguous piece of land to the advanced manufacturing facility. Parcels or tracts of land will be considered contiguous if they possess common boundaries, and would be contiguous but for the interposition of a road, street, railroad, public utility, stream or similar property.

(2) *Property that is not located or co-located at an advanced manufacturing facility or on a contiguous piece of land to the advanced manufacturing facility.* Property that is not located or co-located at an advanced manufacturing facility or on a contiguous piece of land to the advanced manufacturing facility may be considered part of the advanced manufacturing facility if the property is owned by the same taxpayer as the entire advanced manufacturing facility, connected to the advanced manufacturing facility (*e.g.,* via pipeline) and the sole purpose, function, and output of the property is dedicated to the operation of the advanced manufacturing facility.

(g) *Integral to the operation of an advanced manufacturing facility*—(1) *In general.* To qualify for the section 48D credit, property must be integral to the operation of manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment, both as provided in § 1.48D–2. Property is integral to the operation of manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment if such property is used directly in the manufacturing operation, is essential to the completeness of the manufacturing operation, and is not transformed in any material way as a result of the manufacturing operation. Materials, supplies, and other inventoriable items of property that are transformed during the manufacturing of semiconductors or into a unit of semiconductor manufacturing equipment are not considered property integral to the operation of an advanced manufacturing facility. For this purpose, the term *transform* does not include the normal degradation of components of semiconductor manufacturing equipment. In addition, property such as pavements, parking areas, inherently permanent advertising displays, or inherently permanent outdoor lighting facilities, although used in the operation of a business, ordinarily are not integral to the operation of an advanced manufacturing facility. Thus, for example, all property used by the taxpayer to acquire or transport materials or supplies to the point where the actual manufacturing activity commences (such as docks, railroad tracks, and bridges), or all property (other than materials or supplies) used by the taxpayer during the manufacturing of semiconductors or during the manufacturing of semiconductor manufacturing equipment within the meaning of § 1.48D–2, would be considered property integral to the operation of an advanced manufacturing facility of an eligible taxpayer. Property is considered integral to the operation of an advanced manufacturing facility of an eligible taxpayer if so used either by the owner of the property or by a lessee of the property.

(2) *Vertically integrated manufacturers.* If an advanced manufacturing facility that is engaged in the manufacturing of semiconductors within the meaning of § 1.48D–2 also conducts vertically integrated activities (for example, producing raw materials and manufacturing, ingots, wafers, and semiconductors), then property integral to the operation of such an advanced manufacturing facility includes only the property used in the manufacturing of semiconductors within the meaning of § 1.48D–2.

(3) *Specific examples of integral property.* Specific examples of property that normally would be integral to the operation of the advanced manufacturing facility of an eligible taxpayer are:

(i) Equipment and tools used in the processes of Chemical Vapor Deposition (CVD), and Physical Vapor Deposition (PVD), Atomic Layer deposition (ALD), oxidation, annealing, and epitaxy. Such equipment includes Deposition and thin-film growth equipment, etching equipment, and lithography equipment (including Extreme Ultraviolet Lithography (EUV));

(ii) Wet process tools, analytical tools, E-Beam operation tools (to repair masks), mask manufacturing equipment, chemical mechanical polishing equipment, reticle handlers, and stockers;

(iii) Inspection and metrology equipment, including scanning electron

microscopes, atomic force microscopes, ion milling tools, optical inspection systems, wafer probes and optical scatterometer;

(iv) Clean room facilities, including locker and gowning rooms, specialized lighting systems, automated material systems for wafer handling, specialized recirculating air handlers, to maintain the cleanroom free from particles, control temperature and humidity levels, and specialized ceilings comprised of HEPA filters;

(v) Cleanroom equipment (including jogs, hand tools, calibration equipment, and temperature pollution monitoring tools) and specialty cleaning equipment;

(vi) Electrical power facilities, cooling facilities, chemical supply systems, and wastewater and wastewater treatment systems, including water management, water conservation, and water treatment equipment, materials and technologies;

(vii) Electricity distribution equipment including connectors, capacitors, meters and sockets, switchgear, surge arresters and transformers;

(viii) Sub-fab levels containing pumps, transformers, abatement systems, ultrapure water systems, uninterruptible power supply, and boilers, pipes, storage systems, wafer routing systems and databases, backup systems, quality assurance equipment, and computer data centers;

(ix) Utility level equipment including chillers, systems to handle nitrogen, argon, and other gases, compressor systems, and pipes;

(x) Industrial automation and control equipment (including, but not limited to, programmable logic controllers, process controllers, distributed control systems, human machine interface and motor controls and accessories);

(xi) Industrial automation communications devices, networks, and software for industrial automation control products and systems including automated material handling systems (AMHS) and advance wafer routing software systems and databases;

(xii) Tooling equipment;

(xiii) Back-end manufacturing equipment related to assembly, testing, and packaging;

(xiv) Photolithography tools;

(xv) Photomasks, reticles, pellicle, steppers, scanners, and photoresist related equipment;

(xvi) Emulation tools;

(xvii) Rapid thermal processing tools (annealing tubs and vacuum ovens), melting laser annealing (MLA) equipment, wafer bonding equipment, physical removal processing tools (flycutter DieSaw and backgrind), and edge seal dispense;

(xviii) Site infrastructure including but limited to energy, water, natural gas, backup power generators, transformers, stormwater management and fire protection;

(xix) Equipment and installation (wipe-film evaporators);

(xx) Chemical and gas delivery systems (piping, storage, and waste systems including hazardous waste);

(xxi) Bulk chemical purification systems (Liquid N2, Ar, H2, etc.);

(xxii) HVAC air conditioning and air handling systems, critical cooling water systems and heating systems;

(xxiii) Wafer stockers with temperature and air quality control;

(xxiv) Temperature control systems;

(xxv) Security and monitoring system and devices;

(xxvi) Failure analysis labs and equipment;

(xxvii) Quality assurance equipment including incoming goods, in-process inspection, and finished-good inspection;

(xxviii) Transportation, trolleys and carts that are used to transport wafers or overhead conveyer systems to move the carts;

(xxxix) Lighting products;

(xxx) Industrial gas generation and/or handling systems, such as air separation units, including any associated backup and storage equipment;

(xxxi) Input shaping tooling;

(xxxii) Crystal formation and coating equipment;

(xxxiii) Mechanical equipment; and

(xxxiv) Polishing equipment.

(4) *Research or storage facilities.* If property, including a building and its structural components, constitutes a research or storage facility and is used in connection with the manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment, the property may qualify as integral to the operation of the advanced manufacturing facility under section 48D(b)(2)(A)(iv). Specific examples of research facilities include research facilities that manufacture semiconductors in connection with research, such as pre-pilot production lines and prototypes, including semiconductor packaging. Specific examples of storage facilities are mineral or chemical storage equipment, gas storage tanks, including high pressure cylinders or specially designed tanks and drums, wastewater storage, and inventory and finished goods warehouses. A research facility that does not manufacture any type of semiconductor, as provided in § 1.48D–2(m), or semiconductor manufacturing equipment, as provided in § 1.48D–2(o), does not qualify.

(5) *Examples.* The following examples illustrate the rules of this paragraph (g):

(i) *Example 1.* X Corp, a calendar-year C corporation, is a manufacturer of air separation units that are designed to supply on demand nitrogen to an advanced manufacturing facility. In January 2025, X Corp places in service an air separation unit that is co-located at an advanced manufacturing facility on a contiguous piece of land to the advanced manufacturing facility. The air separation unit produces nitrogen on demand, and the nitrogen is used directly in the manufacturing of semiconductors. The air separation unit is part of the advanced manufacturing facility within the meaning of paragraph (f) of this section because the air separation unit is located on a contiguous piece of land to the advanced manufacturing facility. The air separation unit is property integral to the operation of an advanced manufacturing facility under this paragraph (g) because it is used directly in, and is essential to, the completeness of the semiconductor manufacturing operation, and is not transformed in any material way as a result of the semiconductor manufacturing operation.

(ii) *Example 2.* Y Corp, a calendar-year C corporation, is a manufacturer of specialty chemicals that are used in the manufacturing of semiconductors. In 2025, Y Corp places in service equipment at its facility that manufactures the specialty chemicals. The equipment is located five miles from the advanced manufacturing facility, but is not part of the advanced manufacturing facility within the meaning of paragraph (f) of this section because it is not located or co-located at the advanced manufacturing facility, or on a contiguous piece of land to the advanced manufacturing facility, and it is not connected to the advanced manufacturing facility. Also in 2025, Y Corp places in service chemical storage tanks that are part of the advanced manufacturing facility within the meaning of paragraph (f) of this section because the property is located on a contiguous piece of land to the advanced manufacturing facility. The chemical storage tanks are property integral to the operation of the advanced manufacturing facility pursuant to paragraph (g) of this section.

(h) *Applicability date.* This section applies to property that is placed in service after December 31, 2022, and during a taxable year ending on or after October 23, 2024.

§ 1.48D–4 Advanced manufacturing facility of an eligible taxpayer.

(a) *In general.* This section provides definitions and rules relating to advanced manufacturing facilities of eligible taxpayers for purposes of section 48D of the Code and the section 48D regulations.

(b) *Advanced manufacturing facility.* For purposes of section 48D(b)(3) and this section, the term *advanced manufacturing facility* means a facility of an eligible taxpayer for which the

primary purpose, as determined under paragraph (c)(1) of this section, is the manufacturing of semiconductors or the manufacturing of semiconductor manufacturing equipment within the meaning of § 1.48D–2.

(c) *Primary purpose*—(1) *In general.* The determination of the *primary purpose* of a facility will be made based on all the facts and circumstances surrounding the construction, reconstruction, or erection of the advanced manufacturing facility of an eligible taxpayer. Facts that may indicate a facility has a primary purpose of manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment include plans or other documents for the facility that demonstrate that the facility is designed for the manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment within the meaning of § 1.48D–2. Facts may also include the possession of permits or licenses needed for the manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment; and executed contracts to a customer to supply such semiconductors or executed contracts to an advanced manufacturing facility as defined in paragraph (b) of this section to supply such semiconductor manufacturing equipment in place either before or within 6 months after the facility is placed in service. A facility has the primary purpose of manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment if more than 50 percent of its potential output, as measured by cost to produce, revenue received in an arm's length transaction, or units produced, constitutes manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment within the meaning of § 1.48D–2. However, property placed in service in a taxable year must still meet the definition of qualified property under section 48D(b)(2) and § 1.48D–3 for its basis to be included as part of the qualified investment in the advanced manufacturing facility eligible for the section 48D credit. For example, property that is not integral to the operation of an advanced manufacturing facility as provided in § 1.48D–3(g) may not be included as a qualified investment in an advanced manufacturing facility.

(2) *No primary purpose.* A facility for which the primary purpose is the manufacturing, producing, growing, or extracting of materials or chemicals that are supplied to an advanced manufacturing facility is not a facility for which the primary purpose is the manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment. Thus, for example, facilities that exclusively produce semiconductor-grade polysilicon, or produce gases, or that manufacture components or parts, to supply to an advanced manufacturing facility engaged in the manufacturing of semiconductors or manufacturing of semiconductor manufacturing equipment are not facilities for which the primary purpose is the manufacturing of semiconductors or the manufacturing of semiconductor manufacturing equipment.

(3) *Examples.* The following examples illustrate the rules of this paragraph (c):

(i) *Example 1: Primary purpose; in general.* In January 2025, X Corp, a calendar-year C corporation, begins construction of a facility that will manufacture semiconductor manufacturing equipment that could be used in a facility that will engage in semiconductor fabrication (semiconductor fabrication facility). A portion of the equipment produced, however, could be used for manufacturing operations of a facility that is not engaged in semiconductor manufacturing. X Corp enters into a contract with Y Corp, which is building a semiconductor fabrication facility to be placed in service in July 2026, to supply Y Corp with equipment that is integral to semiconductor fabrication. Such equipment represents more than 50 percent of the potential output of X Corp's facility (by cost to produce such equipment) of X Corp's facility for the first year of operations. X Corp's facility will be considered as having a primary purpose of manufacturing of semiconductor manufacturing equipment for the first year of its operations.

(ii) *Example 2: Primary purpose; semiconductor wafer production.* X Corp, a calendar-year C corporation, is engaged in the production of solar wafers (that is, X Corp is engaged in semiconductor wafer production). In January 2025, X Corp receives the necessary permits to begin construction of a facility designed for semiconductor wafer production within the meaning of § 1.48D–2. X Corp enters into a contract to supply such wafers to an unrelated person. Such contract represents more than 50 percent of X Corp's potential output (by revenue received) for the tax year that the facility is placed in service. Because the contract to sell wafers represents more than 50 percent of X Corp's potential output (by revenue received), X Corp's facility will be considered as having a primary purpose of semiconductor wafer production within the meaning of paragraph (c)(1) of this section.

(iii) *Example 3: Primary purpose; vertically integrated manufacturer.* Z Corp, a C corporation, is a vertically integrated manufacturer. In January 2025, Z Corp begins construction of a facility that will produce raw materials and other consumables for use in the manufacturing of semiconductors and such facility will also engage in semiconductor wafer production and semiconductor fabrication. Z Corp enters into separate sales contracts to sell units produced from the semiconductor fabrication with a variety of unrelated companies that are engaged in semiconductor packaging. Z Corp also enters into a sales contract with A Corp to sell raw materials that it produces at the facility to A Corp. Z Corp's production of units from its semiconductor fabrication sold to companies engaged in semiconductor packaging represents more than 50 percent of the potential output (by cost) of Z Corp's facility for the first year of operations; therefore, Z Corp's facility will be considered as having a primary purpose of manufacturing of semiconductors.

(iv) *Example 4: No primary purpose; vertically integrated manufacturer.* Assume the same facts as in paragraph (c)(3)(iii) of this section (*Example 3*), except that Z Corp's production of such raw materials represents more than 50 percent of the potential output of Z Corp's facility for the first year of operations. Z Corp's facility will not be considered as having a primary purpose of manufacturing of semiconductors.

(d) *Applicability date.* This section applies to property that is placed in service after December 31, 2022, and during a taxable year ending on or October 23, 2024.

§ 1.48D–5 Beginning of construction.

(a) *Termination of credit*—(1) *In general.* The credit allowed under section 48D of the Code and the section 48D regulations does not apply to property that is part of an advanced manufacturing facility of an eligible taxpayer if the beginning of construction of the property, as defined in paragraph (a)(2) of this section, begins after December 31, 2026 (the date specified in section 48D(e)).

(2) *Property.* For purposes of determining beginning of construction of property under this section, the unit of property is—

(i) A single advanced manufacturing facility project as described in paragraph (a)(3) of this section; or

(ii) An item of qualified property (as defined in § 1.48D–3(b)).

(3) *Single advanced manufacturing facility project*—(i) *In general.* Solely for purposes of determining whether construction of a qualified property has begun for purposes of section 48D and the section 48D regulations, multiple items of qualified property or advanced manufacturing facilities that are operated as part of a single advanced manufacturing facility project (along with any items of property, such as clean rooms, chemical delivery systems, chemical storage facilities, temperature control systems, robotic handling systems, semiconductor manufacturing equipment, and tooling equipment (such as for deposition and etching) that

are integral to the operation of the single advanced manufacturing facility project) will be treated as a single item of qualified property. Multiple qualified properties or advanced manufacturing facilities will be treated as operated as part of a single advanced manufacturing facility project, if at any point during construction of the multiple qualified properties or advanced manufacturing facilities, they are owned by a single taxpayer (subject to the related taxpayer rule provided in paragraph (a)(3)(ii) of this section) and any two or more of the following factors are present—

(A) The properties or facilities are owned by a single legal entity;

(B) The properties or facilities are constructed on contiguous pieces of land;

(C) The properties or facilities are described in a common supply contract or other type of relevant contract;

(D) The properties or facilities share a common electricity and/or water supply;

(E) The properties or facilities are described in one or more common environmental or other regulatory permits;

(F) The properties or facilities were constructed pursuant to a single master construction contract; or

(G) The construction of the properties or facilities was financed pursuant to the same loan agreement or other financing arrangement.

(ii) *Related taxpayers*—(A) *Definition.* For purposes of this section, the term *related taxpayers* means members of a group of trades or businesses that are under common control (as defined in § 1.52–1(b)).

(B) *Related taxpayer rule.* For purposes of this section, related taxpayers are treated as one taxpayer in determining whether multiple qualified properties or advanced manufacturing facilities will be treated as operated as part of a single advanced manufacturing facility project.

(iii) *Example.* A single taxpayer is developing Project C, a project that will consist of 3 advanced manufacturing facilities constructed on the same campus. Project C will share a common electricity supply, and semiconductors manufactured by Project C will be sold to Buyer through a single supply contract. In 2023, for 1 of the 3 advanced manufacturing facilities, the taxpayer installs deposition equipment. Thereafter, the taxpayer completes the construction of all 3 advanced manufacturing facilities pursuant to a continuous program of construction. For purposes of the section 48D credit, Project C is a single advanced manufacturing facility project that will be treated as a single property, and the taxpayer performed physical work of a significant nature that constitutes the beginning of construction of Project C in 2023.

(iv) *Timing of single advanced manufacturing facility project determination.* Whether multiple properties or advanced manufacturing facilities are operated as part of a single advanced manufacturing facility project and are treated as a single item of property for purposes of the beginning of construction requirement of section 48D and the section 48D regulations is determined in the taxable year during which the last of the multiple properties or facilities is placed in service.

(v) *Disaggregation.* Multiple properties or advanced manufacturing facilities that are operated as part of a single advanced manufacturing facility project and treated as a single item of qualified property under this paragraph (a)(3) for purposes of determining whether construction of a qualified property or advanced manufacturing facility has begun may be disaggregated and treated as separate items of qualified property for purposes of determining whether a separate advanced manufacturing facility or item of qualified property satisfies the continuity safe harbor (as defined in paragraph (e) of this section). Those disaggregated separate advanced manufacturing facilities or items of qualified property that are placed in service prior to the continuity safe harbor deadline will be eligible for the continuity safe harbor. The remaining disaggregated separate items of property or facilities may satisfy the continuity requirement under a facts and circumstances determination.

(vi) *Example.* A single taxpayer is developing Project D, a project that will consist of 4 separate properties. Project D will use the same water supply and each property within Project D will be constructed pursuant to a single master construction contract. Under the single project rule provided in this paragraph (a)(3), Project D is a single project that will be treated as a single property. In 2024, for 3 of the 4 separate properties, the taxpayer installs property integral to the operation of the advanced manufacturing facility. Accordingly, the taxpayer has performed physical work of a significant nature that constitutes the beginning of construction of Project D for purposes of section 48D(e). Thereafter, on the last day of the 10-year continuity safe harbor period, the taxpayer places in service only 3 of the 4 separate properties within Project D. The taxpayer disaggregates Project D under paragraph (a)(3)(v) of this section and accordingly, only 3 of the 4 separate properties satisfy the continuity safe harbor. For the remaining 1 separate property, the taxpayer may demonstrate that it satisfies the continuity requirement provided in paragraph (e) of this section based on the facts and circumstances, to enable the taxpayer to claim the section 48D credit.

(b) *Beginning of construction*—(1) *In general.* For purposes of section 48D, the section 48D regulations, and section 107(f)(1) of the CHIPS Act of 2022, Public Law 117–167, div. A, 136 Stat. 1366, 1399 (August 9, 2022), a taxpayer may establish that construction of an item of property (as defined in paragraph (a)(2) of this section) of the taxpayer begins under either:

(i) The physical work test of paragraph (c) of this section; or

(ii) The five percent safe harbor of paragraph (d) of this section.

(2) *Continuity requirement. See* paragraph (e) of this section for the continuity requirement applicable for purposes of the physical work test and the five percent safe harbor, which must be demonstrated either by maintaining continuous construction (as defined in paragraph (e)(2) of this section) or continuous efforts (as defined in paragraph (e)(3) of this section).

(c) *Physical work test*—(1) *In general.* Under the physical work test, construction of an item of property begins when physical work of a significant nature begins, provided thereafter that the taxpayer maintains continuous construction or continuous efforts. This test focuses on nature of the work performed, not the amount of the costs. Assuming the work performed is of a significant nature, there is no fixed minimum amount of work, monetary or percentage threshold required to satisfy the physical work test.

(2) *Physical work of significant nature*—(i) *In general.* Work performed by the taxpayer and work performed for the taxpayer by other persons under a binding written contract that is entered into prior to the manufacture, construction, or production of the property for use by the taxpayer in the taxpayer's trade or business of manufacturing semiconductors or semiconductor manufacturing equipment is taken into account in determining whether physical work of a significant nature has begun. Both on-site and off-site work (performed either by the taxpayer or by another person under a binding written contract) may be taken into account for purposes of demonstrating that physical work of a significant nature has begun. A written contract is binding only if it is enforceable under local law against the

taxpayer or a predecessor and does not limit damages to a specified amount (for example, by use of a liquidated damages provision). For this purpose, a contractual provision that limits damages to an amount equal to at least five percent of the total contract price will not be treated as limiting damages to a specified amount. For additional guidance regarding the definition of a binding written contract, *see* § 1.168(k)–1(b)(4)(ii)(A) through (D). Specific examples of on-site physical work of a significant nature include the excavation for the foundation and the pouring of the concrete pads of the foundation. Specific examples of off-site physical work of a significant nature include the manufacture of semiconductor manufacturing equipment but only if the manufacturer's work is done pursuant to a binding written contract and the semiconductor manufacturing equipment is not held in the manufacturer's inventory.

(ii) *Exceptions.* Physical work of significant nature does not include preliminary activities, including but not limited to planning or designing, securing financing, exploring, researching, obtaining permits, licensing, conducting surveys, environmental and engineering studies, or clearing a site, even if the cost of those preliminary activities is properly included in the depreciable basis of the property. Physical work of a significant nature also does not include work (performed either by the taxpayer or by another person under a binding written contract) to produce property that is either in existing inventory or is normally held in inventory by a vendor.

(d) *Five percent safe harbor*—(1) *In general.* Construction of a property will be considered as having begun if:

(i) A taxpayer pays or incurs (within the meaning of § 1.461–1(a)(1) and (2)) five percent or more of the total cost of the property; and

(ii) Thereafter, the taxpayer maintains continuous construction or continuous efforts.

(2) *Costs.* All costs properly included in the basis of the property are taken into account to determine whether the five percent safe harbor has been met. For property that is manufactured, constructed, or produced for the taxpayer by another person under a binding written contract with the taxpayer, costs incurred with respect to the property by the other person before the property is provided to the taxpayer are deemed incurred by the taxpayer when the costs are incurred by the other person under the principles of section 461 of the Code.

(3) *Cost overruns*—(i) *Single advanced manufacturing facility project.* If the total cost of a property that is a single advanced manufacturing facility project comprised of multiple properties (as described in paragraph (a)(3) of this section) exceeds its anticipated total cost such that the amount the taxpayer actually paid or incurred with respect to the single advanced manufacturing facility project to establish the beginning of its construction under paragraph (b)(1)(ii) of this section is less than five percent of the total cost at the time it is placed in service, the five percent safe harbor is not fully satisfied. However, the five percent safe harbor will be satisfied with respect to some, but not all, of the separate properties or facilities (as described in paragraph (a)(3) of this section) comprising the single advanced manufacturing facility project, as long as the total aggregate cost of those properties is not more than twenty times greater than the amount the taxpayer paid or incurred.

(ii) *Example.* In 2023, taxpayer incurs $300,000 in costs to construct Project A, comprised of six advanced manufacturing facilities that will be operated as a single project. Taxpayer anticipates that each advanced manufacturing facility will cost $1,000,000 for a total cost for Project A of $6,000,000. Thereafter, the taxpayer makes continuous efforts to advance towards completion of Project A. The taxpayer timely places Project A in service in 2025. In 2025, the actual total cost of Project A amounts to $7,500,000, with each advanced manufacturing facility costing $1,250,000. Although the taxpayer did not pay or incur five percent of the actual total cost of Project A in 2023, the taxpayer will be treated as satisfying the Five Percent Safe Harbor in 2023 with respect to four of the advanced manufacturing facilities, as their actual total cost of $5,000,000 is not more than twenty times greater than the $300,000 in costs incurred by the taxpayer. The taxpayer will not be treated as satisfying the five percent safe harbor in 2023 with respect to two of the properties. Thus, the taxpayer may claim the section 48D credit based on $5,000,000, the cost of four of the properties.

(iii) *Single property.* If the total cost of a single property, which is not part of a single advanced manufacturing facility project comprised of multiple properties or facilities (as described in paragraph (a)(3) of this section) and cannot be separated into multiple properties or facilities, exceeds its anticipated total cost so that the amount a taxpayer actually paid or incurred with respect to the single property as of an earlier year is less than five percent of the total cost of the single property at the time it is placed in service, then the taxpayer will not satisfy the five percent safe harbor with respect to any portion of the single property in such earlier year.

(iv) *Example.* In 2023, a taxpayer incurs $250,000 in costs to construct Project B, a single property. The taxpayer anticipates that the total cost of Project B will be $5,000,000. Thereafter, the taxpayer makes continuous efforts to advance towards completion of Project B. The taxpayer places Project B in service in a later year. At that time, its actual total cost amounts to $6,000,000. Because Project B is a single property that is not a single project comprised of multiple properties, the taxpayer will not satisfy the five percent safe harbor as of 2023. However, if the construction of Project B satisfies the requirements of the physical work test by also beginning physical work of a significant nature in 2024, the taxpayer may be able to demonstrate that construction began in 2024.

(e) *Continuity requirement*—(1) *In general.* For purposes of the physical work test and five percent safe harbor, taxpayers must satisfy the *continuity requirement* by demonstrating either continuous construction or continuous efforts regardless of whether the physical work test or the five percent safe harbor was used to establish the beginning of construction. Whether a taxpayer meets the continuity requirement under either test is determined by the relevant facts and circumstances. The Commissioner will closely scrutinize a property and may determine that the beginning of construction is not satisfied with respect to a property if a taxpayer does not meet the continuity requirement.

(2) *Continuous construction.* The term *continuous construction* means a continuous program of construction that involves continuing physical work of a significant nature. Whether a taxpayer maintains a continuous program of construction to satisfy the continuity requirement will be determined based on all the relevant facts and circumstances.

(3) *Continuous efforts.* The term *continuous efforts* means continuous efforts to advance towards completion of a property to satisfy the continuity requirement. Whether a taxpayer makes continuous efforts to advance towards completion of a property will be determined by the relevant facts and circumstances. Facts and circumstances indicating continuous efforts to advance towards completion of a property may include:

(i) Paying or incurring additional amounts included in the total cost of the property. A taxpayer is considered to meet this factor for a taxable year in which it pays or incurs (within the meaning of § 1.461–1(a)(1) and (2)) five percent or more of the total cost of the property each calendar year after the calendar year during which construction of the property began for purposes of section 48D and the section 48D regulations;

(ii) Entering into binding written contracts for the manufacture, construction, or production of the property or for future work to construct the property;

(iii) Obtaining necessary permits; and

(iv) Performing physical work of a significant nature.

(4) *Excusable disruptions to continuous construction and continuous efforts tests*—(i) *In general.* Certain disruptions in a taxpayer's continuous construction or continuous efforts to advance towards completion of a property that are beyond the taxpayer's control will not be considered as indicating that a taxpayer has failed to satisfy the continuity requirement.

(ii) *Effect of excusable disruptions on continuity safe harbor.* The excusable disruptions provided in this paragraph (e)(4) will not extend the continuity safe harbor deadline that is provided in paragraph (e)(6) of this section.

(iii) *Non-exclusive list of construction disruptions.* This paragraph (e)(4)(iii) provides a non-exclusive list of construction disruptions that will not be considered as indicating that a taxpayer has failed to satisfy the continuity requirement:

(A) Delays due to severe weather conditions.

(B) Delays due to natural disasters.

(C) Delays in obtaining permits or licenses from Federal, Indian Tribal, State, territorial, or local governments. Such delays include delays in obtaining air emissions, water discharge, or hazardous waste management permits or chemical handling licenses from the Environmental Protection Agency (EPA) or another environmental protection authority. Such delays also include delays as a result of the review process under State, Tribal, local, or Federal environmental laws, for example, a review under the National Environmental Policy Act, as well as delays in obtaining construction permits.

(D) Delays at the written request of a Federal, State, local, or Indian Tribal government regarding matters of public health, public safety, security, or similar concerns, including hazardous chemical transport.

(E) Delays related to electrical or water supply, such as those relating to the completion of construction on a distribution line or water supply line that may be associated with a project's electrical and water needs, whether constructed by the eligible taxpayer that is the owner of the advanced manufacturing facility, a governmental entity, or another person.

(F) Delays in the manufacture of custom components or equipment.

(G) Delays due to the inability to obtain specialized equipment of limited availability.

(H) Delays due to supply shortages.

(I) Delays due to the presence of endangered species.

(J) Financing delays.

(K) Delays due to specialized labor shortages or labor stoppages.

(5) *Timing of excusable disruption determination.* In the case of a single advanced manufacturing facility project comprised of a single property, whether an excusable disruption has occurred for purposes of the beginning of construction requirement of section 48D and the section 48D regulations must be determined in the taxable year during which the property is placed in service. In the case of a single advanced manufacturing facility project comprised of multiple properties or facilities, whether an excusable disruption has occurred for purposes of the beginning of construction requirement of section 48D and the section 48D regulations must be determined in the taxable year during which the last of multiple properties or facilities is placed in service.

(6) *Continuity safe harbor*—(i) *In general.* A taxpayer will be deemed to satisfy the continuity requirement provided the property is placed in service no more than 10 calendar years after the calendar year during which construction of the property began for purposes of section 48D and the section 48D regulations.

(ii) *Example.* If construction begins on a property on January 15, 2023, and the property is placed in service by December 31, 2033, the property will be considered to satisfy the continuity safe harbor. If the property is not placed in service before January 1, 2034, whether the continuity requirement was satisfied will be determined based on all the relevant facts and circumstances.

(f) *Applicability date.* This section applies to property that is placed in service after December 31, 2022, and during a taxable year ending on or after October 23, 2024.

■ **Par. 4.** Section 1.50–0 is added to read as follows:

§ 1.50–0 Table of contents.

This section lists the table of contents for §§ 1.50–1 and 1.50–2.

■ **Par. 5.** Section 1.50–2 is added to read as follows:

§ 1.50–2 Recapture of the advanced manufacturing investment credit in the case of certain expansions.

(a) *Recapture in connection with certain expansions*—(1) *In general.* Except as provided in section 50(a)(3)(B) of the Code and paragraph (a)(2) of this section, if an applicable taxpayer engages in an applicable transaction before the close of the applicable period, then the tax under chapter 1 for the taxable year in which such transaction occurs is increased by 100 percent of the applicable transaction recapture amount. Any taxpayer, including an applicable taxpayer, that engages in an applicable transaction during a taxable year does not meet the definition of an eligible taxpayer under section 48D(c) and the section 48D regulations and is ineligible for the section 48D credit for that taxable year. See paragraph (b) of this section for definitions of terms used in section 50(a)(3) and this section.

(2) *Exception.* Section 50(a)(3)(A) and paragraph (a)(1) of this section do not apply if the applicable taxpayer demonstrates to the satisfaction of the Commissioner that the applicable transaction has been ceased or abandoned within 45 days of a determination and notice by the Commissioner. A taxpayer that ceases or abandons a particular applicable transaction for a taxable year may still be treated as engaging in a different applicable transaction for a taxable year. A taxpayer may not circumvent the application of section 50(a)(3) and this section by engaging in a series of applicable transactions, multiple applicable transactions, or other similar arrangements.

(3) *Carrybacks and carryover adjusted.* In the case of any cessation described in section 50(a)(1) or (2), or any applicable transaction to which section 50(a)(3) and paragraph (a)(1) of this section apply, any carryback or carryover under section 39 of the Code is appropriately adjusted by reason of such cessation or applicable transaction.

(b) *Definitions.* The following definitions apply for purposes of section 50(a)(3) and this section.

(1) *Applicable period.* The term *applicable period* means the 10-year period beginning on the date that an applicable taxpayer placed in service property that is eligible for the section 48D credit.

(2) *Applicable taxpayer*—(i) *In general.* Except as provided in paragraph (b)(2)(ii) of this section, the term *applicable taxpayer* means any taxpayer who was allowed a section 48D credit or made an election under section 48D(d)(1) with respect to such credit, for any taxable year prior to the taxable year in which such taxpayer entered into an applicable transaction.

(ii) *Special rules for partnerships and S corporations and their partners and shareholders.* In the case of qualified property placed in service by a partnership or an S corporation for which a section 48D credit was determined, the term *applicable taxpayer* also means—

(A) The partnership and the partners of such partnership (directly or indirectly through one or more tiered partnerships) who were allowed a section 48D credit for such property, or S corporation and the shareholder(s) of such S corporation who were allowed a section 48D credit for such property, for any taxable year prior to the taxable year in which such partnership or S corporation entered into an applicable transaction;

(B) Any partner in a partnership (directly or indirectly through one or more tiered partnerships) or any shareholder in an S corporation with respect to the partner's or S corporation shareholder's share of any section 48D credit allowed for such property for any taxable year prior to when such partner or S corporation shareholder entered into an applicable transaction;

(C) Any partnership or S corporation that made an election under section 48D(d)(2) with respect to a credit determined under section 48D(a)(1) for any taxable year prior to the taxable year in which such partnership or S corporation entered into an applicable transaction; and

(D) Any partner in a partnership (directly or indirectly through one or more tiered partnerships) or shareholder in an S corporation with respect to the partner's or S corporation shareholder's share of any tax-exempt income from the partnership or S corporation that made an election under section 48D(d)(2) for any taxable year prior to when such partner or shareholder entered into an applicable transaction.

(iii) *Examples.* The following examples illustrate the rules of this paragraph (b)(2).

(A) *Example 1: Applicable taxpayer: In general.* On July 1, 2026, X Corp, a calendar-year C corporation, entered into an applicable transaction. In 2025, X Corp had placed in service qualified property that is part of an advanced manufacturing facility and was allowed a section 48D credit for its 2025 taxable year. X Corp is an applicable taxpayer when it entered into the applicable transaction.

(B) *Example 2: Applicable taxpayer: In general.* The facts are the same as in paragraph (b)(2)(iii)(A) of this section (*Example 1*), except that X timely filed its 2025 tax return properly making an election under section 48D(d)(1) with respect to the section 48D credit. X Corp is an applicable taxpayer when it entered into the applicable transaction.

(C) *Example 3: Applicable taxpayer: Special rules for partnerships and S corporations and their partners and shareholders.* A, B, C, and D, all calendar-year C corporations, are partners in the ABCD partnership. Partners A, B, C, and D share partnership profits equally. On May 1, 2027, the ABCD partnership engages in an applicable transaction. On November 1, 2025, the ABCD partnership had placed in service qualified property with a basis of $1 million. Each partner's share of the basis of the qualified property, as determined in § 1.46–3(f)(2), is $250,000 ($1m x 0.25) and each partner's qualified investment is $250,000. A, B, C, and D each filed its 2025 tax return claiming a section 48D credit. The ABCD partnership and A, B, C, and D each are an applicable taxpayer when ABCD partnership enters into the applicable transaction.

(D) *Example 4: Applicable taxpayer: Special rules for partnerships and S corporations and their partners and shareholders.* The facts are the same as in paragraph (b)(2)(iii)(C) of this section (*Example 3*), except that on May 1, 2027, A, and not ABCD partnership, engages in an applicable transaction. A is an applicable taxpayer with respect to A's share of the section 48D credit when A enters into the applicable transaction. Neither the ABCD partnership nor partners B, C, nor D are an applicable taxpayer with respect to the applicable transaction entered into by A.

(E) *Example 5: Applicable taxpayer: Special rules for partnerships and S corporations and their partners and shareholders.* The facts are the same as in paragraph (b)(2)(iii)(C) of this section (*Example 3*), except that A, B, C and D do not claim a section 48D credit on their timely filed 2025 tax returns. Instead, the ABCD partnership makes an election pursuant to section 48D(d)(2) with respect to the section 48D credit determined under section 48D(a)(1). The ABCD partnership is an applicable taxpayer with respect to the elective payment to the ABCD partnership pursuant to section 48D(d)(2)(A)(i)(I).

(F) *Example 6: Applicable taxpayer: Special rules for partnerships and S corporations and their partners and shareholders.* The facts are the same as in paragraph (b)(2)(iii)(E) of this section (*Example 5*), except that the ABCD partnership did not engage in an applicable transaction. On May 1, 2027, A engages in an applicable transaction. A is an applicable taxpayer with respect to its share of tax-exempt income allocated to A pursuant to section 48D(d)(2)(A)(i)(II) and (IV). Neither the ABCD partnership nor partners B, C, or D are an applicable taxpayer with respect to the applicable transaction entered into by A.

(iv) *Affiliated groups.* For purposes of this paragraph (b)(2), all members of an affiliated group under section 1504(a) of the Code, determined without regard to section 1504(b)(3), are treated as one taxpayer.

(3) *Applicable transaction.* Except as provided in section 50(a)(6)(D)(ii) and paragraph (c)(1) of this section, the term *applicable transaction* means, with respect to any applicable taxpayer, any significant transaction involving the material expansion of semiconductor manufacturing capacity of such applicable taxpayer in any foreign country of concern.

(4) *Applicable transaction recapture amount.* The term *applicable transaction recapture amount* means, with respect to an applicable taxpayer, the aggregate decrease in the credits allowed under section 38 of the Code for all prior taxable years that would have resulted solely from reducing to zero any credit determined under section 46 of the Code that is attributable to the advanced manufacturing investment credit under section 48D(a), with respect to property that has been placed in service during the applicable period.

(5) *Existing facility.* The term *existing facility* means any facility built, equipped, and operating prior to a taxpayer placing in service qualified property as defined in section 48D(b)(2) and § 1.48D–3. Existing facilities are defined by their semiconductor manufacturing capacity at the time the qualified property is placed in service; facilities that undergo significant renovations, as defined in paragraph (b)(9) of this section, will no longer qualify as existing facilities within the meaning of this paragraph (b)(5).

(6) *Foreign country of concern.* The term *foreign country of concern* has the same meaning as provided in 15 CFR 231.102.

(7) *Material expansion.* The term *material expansion* means—

(i) With respect to an existing facility, the increase of the semiconductor manufacturing capacity of that facility by more than five percent during the applicable period due to the addition of a cleanroom, production line or other physical space, or a series of such additions; or

(ii) Any construction of a new facility for semiconductor manufacturing.

(8) *Semiconductor manufacturing capacity.* The term *semiconductor manufacturing capacity* means, consistent with 15 CFR 231.117, the productive capacity of a semiconductor facility. In the case of a semiconductor wafer production facility that includes the processes of growing single-crystal ingots and boules, wafer slicing, wafer bonding, etching and polishing, cleaning, epitaxial deposition, and metrology, semiconductor manufacturing capacity is measured in wafer starts per month. In the case of a semiconductor fabrication facility, semiconductor manufacturing capacity is measured in wafer starts per year. In the case of a packaging facility, semiconductor manufacturing capacity is measured in packages per year.

(9) *Significant renovations.* The term *significant renovations* means building new cleanroom space or adding a production line or other physical space to an existing facility that, in the aggregate during the applicable period, increases semiconductor manufacturing capacity by 10 percent or more of the capacity.

(10) *Significant transaction*—(i) *In general.* As determined in coordination with the Secretary of Commerce and the Secretary of Defense and except as provided in paragraph (b)(10)(ii) of this section, the term *significant transaction* means any of the following:

(A) An investment, whether proposed, pending, or completed, including any capital expenditure, loan, or gift;

(B) The formation of a subsidiary, whether classified as a corporation or partnership for Federal tax purposes;

(C) A merger, acquisition, or takeover, including—

(1) The acquisition of a new or additional ownership interest in an entity;

(2) The acquisition of a material portion of the assets of an entity; or

(3) A consolidation;

(D) The formation of a joint venture; or

(E) A long-term lease or concession arrangement under which a lessee (or equivalent) makes substantially all business decisions concerning the operation of a leased entity (or equivalent), as if it were the owner.

(F) A transaction that involves the expansion of manufacturing capacity for legacy semiconductors (other than with respect to an existing facility or equipment of an applicable taxpayer for manufacturing legacy semiconductors) if less than 85 percent of the output of the semiconductor manufacturing facility (for example, wafers, semiconductor devices, or packages) by value, is incorporated into final products (that is, not an intermediate product that is used as factory inputs for producing other goods) that are used or consumed in the market of a foreign country of concern; or

(G) A transaction during the applicable period in which an applicable taxpayer knowingly (within the meaning of 15 CFR 231.106) engages in any joint research, as defined in 15 CFR 231.105, or technology licensing effort with a foreign entity of concern that relates to a technology or product that raises national security concerns.

(ii) *Required agreement.* If a taxpayer enters into a required agreement with the Secretary of Commerce pursuant to 15 U.S.C. 4652(a)(6)(C) and 15 CFR 231.112, then the term *significant transaction* for purposes of section 48D and the section 48D regulations has the meaning provided in the required agreement. Defined terms in the required agreement control only for purposes of determining the meaning of the term *significant transaction.* Thus, the effect of a significant transaction is determined under section 50(a)(3) and (6) during the applicable term defined under paragraph (b)(1) of this section.

(11) *Technology licensing.* The term *technology licensing* has the same meaning as provided in 15 CFR 231.120.

(12) *Technology or product that raises national security concerns.* The term *technology or product that raises national security concerns* has the same meaning as provided in 15 CFR 231.121.

(c) *Exception from the definition of applicable transaction for the manufacturing of legacy semiconductors*—(1) *In general.* The term *applicable transaction,* as defined in section 50(a)(6)(D) and paragraph (b)(3) of this section, does not include a transaction that primarily involves the expansion of manufacturing capacity for legacy semiconductors, but only to the extent not described in paragraph (b)(10)(i)(F) of this section.

(2) *Legacy semiconductor.* The term *legacy semiconductor* has the same meaning as provided in 15 CFR 231.107.

(d) *Example: Applicable transaction credit claimed.* On January 15, 2025, X Corp, a C corporation that is a calendar-year taxpayer, placed in service Property A, qualified property with a basis of $1 million. X Corp's qualified investment, as determined in § 1.46–3(c), for the taxable year is $1 million. X Corp's advanced manufacturing investment credit for the taxable year is $250,000 ($1 million × 0.25) and,

assume that X Corp's income tax liability is $400,000. X Corp does not determine any other credits in 2025. X claims an advanced manufacturing investment credit of $250,000 for its 2025 taxable year. On December 15, 2026, X Corp engages in an applicable transaction, as defined in section 50(a)(6)(D) and paragraph (b)(3) of this section and did not cease or abandon the transaction within 45 days of a determination and notice by the Commissioner. X Corp has not determined or claimed any general business credits since its 2025 taxable year. The aggregate decrease in credits allowed under section 38 for all prior years resulting from reducing to zero any credit determined under section 46 that is attributable to the advanced manufacturing investment credit is $250,000 ($250,000 (credit allowed) − $0 (credit that would have been allowed)). X Corp's tax under chapter 1 is increased by $250,000 (1.0 × $250,000) for the 2026 taxable year. Pursuant to section 48D(c), for the 2026 taxable year, X Corp is not an eligible taxpayer and is ineligible to claim or carryforward the advanced manufacturing investment credit.

(e) *Applicability date.* This section applies to property that is placed in service after December 31, 2022, and during a taxable year ending on or after October 23, 2024.

Douglas W. O'Donnell,

Deputy Commissioner.

Approved: October 8, 2024.

Aviva R. Aron-Dine,

Deputy Assistant Secretary of the Treasury (Tax Policy).

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