

# **PART 71—DESIGNATION OF CLASS A, B, C, D, AND E AIRSPACE AREAS; AIR TRAFFIC SERVICE ROUTES; AND REPORTING POINTS**

■ 1. The authority citation for 14 CFR part 71 continues to read as follows:

**Authority:** 49 U.S.C. 106(f), 106(g); 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

## **§ 71.1 [Amended]**

■ 2. The incorporation by reference in 14 CFR 71.1 of FAA Order JO 7400.11G, Airspace Designations and Reporting Points, dated August 19, 2022, and effective September 15, 2022, is amended as follows:

*Paragraph 2004 Jet Routes.*

\* \* \* \* \*

## **J–184 [Removed]**

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*Paragraph 2006 United States Area Navigation Routes.*

\* \* \* \* \*

## **Q–180 Buckeye, AZ (BXX) to Newman, TX (EWM) [New]**

Buckeye, AZ (BXX)	VORTAC	(Lat. 33°27'12.45" N, long. 112°49'28.54" W)
WOBUG, NM	FIX	(Lat. 32°35'24.04" N, long. 108°53'44.19" W)
Deming, NM (DMN)	VORTAC	(Lat. 32°16'31.99" N, long. 107°36'19.80" W)
Newman, TX (EWM)	VORTAC	(Lat. 31°57'06.43" N, long. 106°16'20.85" W)

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Issued in Washington, DC, on March 15, 2023.

**Brian Konie,**

*Acting Manager, Airspace Rules and Regulations.*

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## **DEPARTMENT OF COMMERCE**

### **National Institute of Standards and Technology**

#### **15 CFR Part 231**

**[Docket Number: 230313–0074]**

**RIN 0693–AB70**

### **Preventing the Improper Use of CHIPS Act Funding**

**AGENCY:** CHIPS Program Office, National Institute of Standards and Technology, Department of Commerce.

**ACTION:** Proposed rule; request for public comment.

**SUMMARY:** The CHIPS Act (the Act) established an incentives program to reestablish and sustain U.S. leadership across the semiconductor supply chain. To ensure that funding provided through this program does not directly or indirectly benefit foreign countries of concern, the Act includes certain limitations on funding recipients, such as prohibiting engagement in certain significant transactions involving the material expansion of semiconductor manufacturing capacity in foreign countries of concern and prohibiting certain joint research or technology licensing efforts with foreign entities of concern. The Department of Commerce (Department) is issuing, and requesting public comments on, a proposed rule to set forth terms related to these limitations and procedures for funding recipients to notify the Secretary of Commerce (Secretary) of any planned

significant transactions that may be prohibited.

**DATES:** To be assured of consideration, written comments must be received on or before May 22, 2023.

**ADDRESSES:** You may submit comments, identified by docket number NIST–2023–0001 or RIN 0693–AB70, through any of the following:

- Federal eRulemaking Portal at <https://www.regulations.gov>. You can find this proposed rule by searching for its *regulations.gov* docket number NIST–2023–0001.

- *Email:* [guardrails@chips.gov](mailto:guardrails@chips.gov). Include RIN 0693–AB70 in the subject line of the message.

The Department will consider all comments received before the close of the comment period. Filers should name their files using the name of the person or entity submitting the comments except where comments are intended to be anonymous.

The Department will accept anonymous comments or comments containing business confidential information (BCI). Anyone submitting business confidential information should clearly identify the business confidential portion at the time of submission, file a statement justifying nondisclosure and referring to the specific legal authority claimed, and provide a non-confidential submission that summarizes the BCI in sufficient detail to permit a reasonable understanding of the substance of the information by the public. For anyone seeking to submit comments with BCI, the file name of the business confidential information must be clearly marked “BUSINESS CONFIDENTIAL” and it must be indicated on top of that page. The corresponding non-confidential version of those comments must be clearly marked “PUBLIC.” The file name of the non-confidential version should begin with the character “P.” The “BC” and “P” should be followed by the name of the person or entity submitting the comments. Any

submissions with file names that do not begin with a “BC” will be part of the public record and will generally be made publicly available through <https://www.regulations.gov>.

**FOR FURTHER INFORMATION CONTACT:** Sam Marullo, Director, CHIPS Policy at (202) 482–3844 or [askchips@chips.gov](mailto:askchips@chips.gov). Please direct media inquiries to the CHIPS Press Team at [press@chips.gov](mailto:press@chips.gov).

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

Semiconductors are essential components of electronic devices that enable telecommunications and grid infrastructure, run critical business and government information technology and operational technology systems, and are necessary to a vast array of products, from automobiles to fighter jets. Recognizing the criticality of supply chain security and resilience for semiconductors and related products, the President signed the *Executive Order on America’s Supply Chains*<sup>1</sup> shortly after taking office in February 24, 2021. This Executive order, among other things, directed several Departments to undertake assessments of critical supply chains; several of the resulting reports address microelectronics and related subcomponent supply chains.<sup>2</sup> The resulting June 2021 *White House Report on Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth*<sup>3</sup>

<sup>1</sup> <https://www.govinfo.gov/content/pkg/FR-2021-03-01/pdf/2021-04280.pdf>.

<sup>2</sup> The White House, *The Biden-Harris Plan to Revitalize American Manufacturing and Secure Critical Supply Chains in 2022* (February 24, 2022), available at <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/24/the-biden-harris-plan-to-revitalize-american-manufacturing-and-secure-critical-supply-chains-in-2022/>.

<sup>3</sup> Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth: 100-Day Reviews under Executive Order 14017 (June 2021), available at <https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf>.

highlighted the insufficient domestic manufacturing capacity for semiconductors. The White House Report noted that the United States lacks advanced semiconductor manufacturing capabilities and is dependent on geographically concentrated and in some cases potentially unreliable sources of supply. It recommended dedicated funding to advance semiconductor manufacturing, and research and development to support critical manufacturing, industrial, and defense applications.

In August 2022, the Congress passed the CHIPS Act of 2022,<sup>4</sup> which amended Title XCIX of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, 15 U.S.C. 4651 *et seq.*, also known as the Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Act. Together, these statutory provisions (collectively, the CHIPS Act or Act), establish a semiconductor incentives program (CHIPS Incentives Program) that will provide funding, including via grants, cooperative agreements, loans, loan guarantees, and other transactions, to support investments in the construction, expansion, and modernization of facilities in the United States for the fabrication, assembly, testing, advanced packaging, production, or research and development of semiconductors, materials used to manufacture semiconductors, or semiconductor manufacturing equipment.

The CHIPS Incentives Program aims to strengthen the security and resilience of the semiconductor supply chain by mitigating gaps and vulnerabilities. It aims to ensure a supply of secure semiconductors essential for national security and to support critical manufacturing industries. It also aims to strengthen the resilience and leadership of the United States in semiconductor technology, which is vital to national security and future economic competitiveness of the United States.

The CHIPS Incentives Program is administered by the CHIPS Program Office (CPO) within the National Institute of Standards and Technology (NIST) of the United States Department of Commerce. CPO is separately issuing Notices of Funding Opportunity (NOFO) that lay out the procedures by which interested organizations may apply for CHIPS Incentives Program funds, and criteria under which applications will be evaluated.

To protect national security and the resiliency of supply chains, CHIPS

Incentives Program funds may not be provided to a foreign entity of concern, such as an entity that is owned by, controlled by, or subject to the jurisdiction or direction of a country that is engaged in conduct that is detrimental to the national security of the United States. This proposed rule includes a detailed explanation of what is meant by foreign entities of concern, as well as a definition of “owned by, controlled by, or subject to the jurisdiction or direction of.”

In further support of U.S. national security interests, CHIPS Incentives Program recipients (funding recipients) are required by the Act to enter into an agreement (required agreement) with the Department 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. In recognition that some potential applicants for CHIPS Incentives may have existing facilities in foreign countries of concern, and to minimize potential supply chain disruptions, the Act includes exceptions for certain transactions involving older (legacy) semiconductor manufacturing in a foreign country of concern.

A funding recipient must notify the Secretary of any planned significant transactions of the funding recipient or its affiliates involving the material expansion of semiconductor manufacturing capacity in a foreign country of concern, including in cases where it believes the transaction is allowed under the exceptions in 15 U.S.C. 4652(a)(6)(C)(ii). Terms related to this notification requirement are defined in Subpart A of this rule. The Secretary will provide direct notice to the funding recipient that a review of a transaction is being conducted and, later, that the Secretary has reached an initial determination regarding whether the transaction is prohibited. Funding recipients may submit additional information or request that the initial determination be reconsidered, after which the Secretary will provide a final determination. In making determinations, the Secretary will consult with the Director of National Intelligence and the Secretary of Defense.

The Secretary will initiate review of transactions by funding recipients through self-reported notifications; the Secretary also may initiate a review of non-notified transactions, including based on information provided by other government agencies or information from other sources.

Failure by a funding recipient (or its affiliate) to comply with this restriction

on semiconductor manufacturing capacity expansion in foreign countries of concern may result in recovery of the full amount of Federal financial assistance provided to the funding recipient (referred to in the Act as the “Expansion Clawback.”)

The Act also prohibits funding recipients from knowingly engaging in any joint research or technology licensing effort with a foreign entity of concern that relates to a technology or product that raises national security concerns as determined by the Secretary and communicated to the funding recipient before engaging in such joint research or technology licensing. A funding recipient’s required agreement will include a commitment that the funding recipient and its affiliates will not conduct prohibited joint research or technology licensing. Failure to comply with this restriction may also result in recovery of the full amount of Federal assistance (referred to in the Act as the “Technology Clawback.”)

#### Discussion of Proposed Rule

This proposed rule defines terms used in the Act (including terms that will be used in required agreements with funding recipients), identifies the types of transactions that are prohibited under the Expansion Clawback and Technology Clawback sections of the Act, and provides a description of the process for notification of transactions to the Secretary.

##### A. Definitions

This section provides background and explanation for the way that specific terms used in the Act relating to these prohibitions are defined. Some key terms used in the Expansion Clawback section of the Act are not defined in the Act; however, the definitions of these terms in the proposed rule will affect which business transactions are exceptions to the Expansion Clawback prohibition. The Department has carefully considered each of these terms and is proposing definitions in this proposed rule that are consistent with the intent of the overall CHIPS Incentives Program and the Act. This section discusses the definitions and factors considered in developing these definitions.

The Expansion Clawback section of the Act (15 U.S.C. 4652(a)(6)) states that funding recipients may not engage in any significant transaction involving the material expansion of semiconductor manufacturing capacity in a foreign country of concern. Consistent with the Act, the proposed rule extends this prohibition to the funding recipient’s affiliates, to ensure the purpose of the

<sup>4</sup> CHIPS Act of 2022 (Division A of Pub. L. 117–167).

prohibition is not circumvented. The proposed rule defines terms such as “affiliate,” “significant transaction,” “material expansion,” and “semiconductor manufacturing.”

In addition, the Expansion Clawback section of the Act spells out exceptions to the prohibition on semiconductor manufacturing capacity expansions, which apply to existing facilities manufacturing legacy semiconductors and for significant transactions involving semiconductor manufacturing capacity expansion for new facilities producing legacy semiconductors that predominately serve the market of a foreign country of concern. The proposed rule defines key terms for these exceptions, including “legacy semiconductors,” “predominately serves the market,” and “existing facilities.”

The proposed rule defines “affiliate” to include the funding recipient’s parent company or parent companies (*i.e.*, entities that directly or indirectly own a majority of the funding recipient’s voting interest), the funding recipient’s majority-owned subsidiaries, and entities that are majority owned by a parent company or any majority-owned subsidiary of a parent company. This proposed rule defines the term “significant transaction” to mean a transaction whose value exceeds \$100,000, or series of transactions which in the aggregate during the applicable term of a required agreement are valued at \$100,000 or more. This monetary value was chosen in order to provide a clear and quantitative standard that captures even modest expansions by funding recipients of semiconductor manufacturing capacity in foreign countries of concern.

The term “material expansion” is defined in the proposed regulations to include the construction of new facilities and the addition of new semiconductor manufacturing capacity and uses a quantitative measure of 5 percent of existing capacity to provide clear and predictable scoping. This definition is meant to allow for funding recipients that have existing facilities in a foreign country of concern to continue to operate and maintain their competitiveness by allowing for technological upgrades, as long as overall semiconductor manufacturing capacity is not increased by more than 5 percent.

“Semiconductor manufacturing” is proposed to be defined as semiconductor fabrication and/or packaging and includes both front-end fabrication as well as back-end manufacturing (assembly, testing, and packaging of semiconductors). The term

“legacy semiconductor” is defined in the Act as it pertains to logic semiconductors, but not as it pertains to other types of semiconductors (*e.g.*, memory), or for packaging of semiconductors. With regard to memory semiconductors, the proposed definition was drafted to be harmonious with current export control levels. With regard to packaging, the proposed definition was drafted to exclude semiconductors packaged utilizing 3D integration, which is considered advanced packaging. In addition, the Act provides that semiconductors “critical to national security” are not considered legacy semiconductors, regardless of the production technology used. A list of these “semiconductors critical to national security,” as determined with input from the Secretary of Defense and the Director of National Intelligence, is included in this proposed rule.

The proposed rule defines “predominately serves the market” by referring to where the final products incorporating the legacy semiconductors are used or consumed. This definition is designed to ensure that exceptions under 15 U.S.C. 4652(a)(6)(C)(ii) are limited to legacy semiconductors that remain in the market of the country in which they are manufactured, rather than semiconductors that are incorporated into secondary products and for export and use internationally.

The proposed rule defines “existing facility,” as excluding facilities that undergo “significant renovations” after the required agreement. Therefore, transactions that significantly renovate an existing facility (*i.e.*, add an additional line or otherwise increase semiconductor manufacturing capacity by 10 percent or more) will not fall under the exception for existing facilities or equipment for manufacturing legacy semiconductors in 15 U.S.C. 4652(a)(6)(C)(ii)(I).

The second prohibition (the Technology Clawback section of the Act (15 U.S.C. 4652(a)(5)(C)) bans funding recipients from engaging in joint research or technology licensing efforts with foreign entities of concern that relate to a technology or product that raises national security concerns. The proposed rule extends this prohibition to the funding recipient’s affiliates, to ensure the purpose of the prohibition is not circumvented. Definitions included in this proposed rule in this regard include “joint research,” “technology licensing” and “technology or product raising national security concerns.” This proposed rule defines “a technology or product that raises national security concerns” as (a) semiconductors critical

to national security and (b) electronics-related products and technologies controlled by the Department in the Export Administration Regulations for national security or regional stability reasons.

The Department recognizes that some funding recipients may have pre-existing contracts or other arrangements which commit them to joint research or technology licensing with foreign entities of concern that relate to a technology or product that raises national security concerns. CPO invites comments from interested parties on the extent and nature of these pre-existing arrangements, the ability of funding recipients to abandon them with or without penalty, and the feasibility and impact of exempting joint research or technology licensing done pursuant to an agreement which predates this rule.

Statutory definitions of several terms, *e.g.*, “person,” “foreign entity,” “foreign country of concern,” and “foreign entity of concern,” are incorporated into the regulations in subpart A, Definitions, §§ 231.101 through 231.124. The definitions of several terms, such as “person” are not expanded upon. “Foreign entity,” is defined per the statute and is understood to include not only an entity incorporated in a foreign country, but also to include any person owned by, controlled by, or subject to the jurisdiction or direction of a foreign entity, including any wholly owned U.S. subsidiaries. The term “foreign entity of concern” was defined in the Act with reference to specific categories of entities. However, with authority provided in the Act (15 U.S.C. 4651(8)(E)) the Secretary proposes to designate three additional categories of entities that are determined to be engaged in conduct detrimental to the national security or foreign policy of the United States: entities included on the Bureau of Industry and Security’s Entity List, entities included on the Department of the Treasury’s list of Non-Specially Designated Nationals (SDN) Chinese Military-Industrial Complex Companies (NS-CMIC List), and entities identified in the Federal Communications Commission’s list of Equipment and Services Covered By section 2(a) of the Secure and Trusted Communications Networks Act of 2019 as providing covered equipment or services.

Finally, the proposed rule uses the term “funding recipient” rather than “covered entity.” A funding recipient in these proposed regulations is a subset of covered entities as defined in the Act at 15 U.S.C. 4651. Whereas covered entities in the Act are those eligible to apply for financial assistance from the

Department, funding recipients are those that have been awarded and receive the financial assistance.

#### B. General

This subpart primarily tracks the statutory language contained in the Expansion Clawback and Technology Clawback sections of the Act. Additionally, this subpart provides that funding recipients are required to maintain records related to significant transactions in a manner consistent with the recordkeeping practices used in their ordinary course of business. This requirement applies to the 10-year duration of the required agreement and for a period of seven years after any significant transaction.

#### C. Notification and Review

While this proposed rule sets out definitions and parameters for which types of transactions by funding recipients will be prohibited, and which types qualify for an exception, in accordance with the Act, funding recipients are required to notify the Secretary of any planned significant transaction involving the material expansion of semiconductor manufacturing capacity in a foreign country of concern (including those that may meet the criteria of one of the exceptions). This subpart provides details on the process by which funding recipients shall notify the Secretary of planned significant transactions, the specific information regarding the transaction that must be included, and the way in which transactions will be considered by the Secretary, including potential mitigations. This subpart also describes the process for review of actions that may violate the prohibition on certain joint research or technology licensing, and the recovery of Federal funds in the case of violations.

#### D. Other Provisions

In recognition of the fact that semiconductor and semiconductor manufacturing technology evolve and mature over time, the CHIPS Act requires the Secretary of Commerce to regularly assess which additional technology should be considered for inclusion in the meaning of the term “legacy semiconductor.” The Act requires the Secretary to identify additional semiconductor technology that will be considered “legacy” not later than August 9, 2024, and at least every two years thereafter for a period of eight years. This portion of the proposed rule tracks this requirement; given the rapid cadence of technology adoption and relatively limited duration of market relevance of memory

technology nodes, the Secretary may decide to reevaluate the technologies that are considered “legacy semiconductors” in this regard on a more frequent basis. The Secretary will provide an opportunity for public input and comment for any proposed updates.

Lastly, this subpart notes that any false or fraudulent information or statements knowingly or willingly provided to the Secretary by funding recipients may result in fines and/or imprisonment in accordance with the False Statements Accountability Act of 1996.

#### Classification

##### *Executive Order 13132*

This proposed rule does not contain policies with federalism implications as that term is defined in section 1(a) of Executive Order 13132, dated August 4, 1999 (64 FR 43255 (August 10, 1999)).

##### *Executive Order 12866*

The Office of Management and Budget (OMB) has determined that this proposed rule is significant as defined by Section 3(f)(1) for purposes of Executive Order 12866.

#### Regulatory Impact

##### Background

This notice of proposed rulemaking (NPRM) implements certain provisions of the CHIPS Act related to the clawback of funds provided under the CHIPS Incentives Program. The Act established a program in the Department to provide Federal financial assistance totaling \$39 billion to incentivize investment in facilities and equipment in the United States for the fabrication, assembly, testing, advanced packaging, production, or research and development of semiconductors. Entities choosing to pursue funding through the CHIPS Incentives Program will undergo a rigorous application and selection process. The first Notice of Funding Opportunity (NOFO) for this Program seeks applications for funding projects for the construction, expansion, or modernization of commercial facilities for the front- and back-end fabrication of leading-edge, current-generation and mature-node semiconductors, and explains the requirements and expectations for funding applicants and recipients. Applications for funding are voluntary and are separate from this proposed rule. The costs of applying for funding are not considered here.

Among the conditions of funding, all funding recipients will be required to enter into an agreement with the Department prohibiting them from

engaging in significant transactions involving the material expansion of semiconductor manufacturing capacity in a foreign country of concern. In addition, funding recipients will be prohibited from engaging in joint research or technology licensing efforts with foreign entities of concern that relate to a technology or product that raises national security concerns. Violations of either of these prohibitions may result in recovery of up to the full amount of Federal funding provided. This proposed rule implements these prohibitions in the Act, called the “Expansion Clawback” and “Technology Clawback.” Because these prohibitions are an integral part of the CHIPS Incentives Program, the impact of this proposed rule is considered in conjunction with the broader impacts of the program as a whole.

#### Regulated Entities

CHIPS Incentives Program funding recipients constitute the sole population of entities potentially directly impacted by this proposed regulation. It is unknown exactly how many entities will seek and be granted funding or the specific amount of the awards. Business statistics on domestic semiconductor manufacturing provide some information about the number of U.S. businesses potentially affected by this rule. According to the most recent data available from the U.S. Census Bureau, in 2019, there were a total of 723 establishments in the United States involved in “semiconductor and related device manufacturing” (North American Industry Classification System (NAICS) 333413) and a total of 150 establishments involved in the manufacturing of machinery used to make semiconductors (NAICS 333242).<sup>5</sup> It is anticipated that only a fraction of such establishments are likely to apply for and receive funding through this program. Furthermore, only a few companies currently maintain productive capacity in foreign countries of concern and produce semiconductors that fall within the thresholds contemplated in the proposed regulation.<sup>6</sup> Therefore, only a small subset of establishments would potentially be subject to the prohibitions on expansion of manufacturing capacity and joint research and, in the case of

<sup>5</sup> U.S. Census Bureau, Department of Commerce, 2019 *SUSB Annual Data Tables by Establishment Industry* (February 2022), available at <https://www.census.gov/data/tables/2019/econ/susb/2019-susb-annual.html>.

<sup>6</sup> SEMI, *World Fab Forecast* (2022). These few companies referred to companies that have productive capacity in countries of concern and are not headquartered in countries of concern.

violations, the potential clawback of funds.

#### Potential Impact on Investments

The proposed rule would limit funding recipients' ability to invest in new semiconductor manufacturing capacity in countries of concern. This limitation is intended to ensure that Federal funding is used, as intended by the CHIPS Act, to incentivize investment in semiconductor facilities and equipment in the United States. At this time, it is unknown how the investments in countries of concern by those that are not funding recipients will be affected.

Although the provisions in this proposed rule would prohibit funding recipients from establishing most new manufacturing capacity in countries of concern, recipients with existing facilities in countries of concern would be able to continue current operations. The proposed rule would also allow recipients to upgrade technology at existing foreign facilities (in compliance with export controls) if overall production capacity is not increased. In addition, recipients could modestly expand capacity at existing facilities producing mature (legacy) technology. Finally, this proposed rule would allow recipients to make new investments in manufacturing capacity in countries of concern in the limited circumstance in which such production of legacy-level semiconductors would "predominately serve the market of the foreign country of concern." These provisions ensure minimal disruptions to revenues, for the foreseeable future, to firms that currently have productive capacity in countries of concern. It is estimated that less than ten firms may be impacted.<sup>7</sup>

This regulatory impact analysis does not consider the private costs to funding recipients of limiting their investments in countries of concern. In pursuing program funding, applicants are expected to weigh the private costs and benefits of the conditions for funding outlined by the provisions in this proposed rule. CHIPS Incentives Program funding is intended to complement, not replace, private investment and other sources of funding. Using \$39 billion in financial assistance, the CHIPS Incentives Program is designed to restore U.S. leadership in semiconductor manufacturing and innovation. Through the first funding opportunity, released February 28, 2023, the CHIPS Incentives

Program aims to (1) to build at least two new large-scale cluster of leading-edge logic fabs, (2) to be home to multiple high-volume advanced packaging facilities, (3) to produce high-volume leading-edge dynamic random-access memory (DRAM) chips on economically competitive terms, and (4) to increase its production capacity for the current-generation and mature node chips that are most vital to U.S. economic and national security. To achieve these aims, the CHIPS Incentives Program funding awards are designed to catalyze private investment in the United States.

By restricting funding recipients' ability to invest in new semiconductor manufacturing capacity in countries of concern, the proposed rule would also likely catalyze investment outside countries of concern.

In particular, the demand for leading-edge, current, and mature semiconductors are estimated to increase significantly in the next decade, from approximately \$600 billion per year in 2022 to approximately \$1 trillion revenue per year within the next 10 years.<sup>8</sup> An increase in global productive capacity for a wide variety of semiconductors will be needed to supply the increased chip demand. The restriction on expanding manufacturing capacity in countries of concern is likely to increase the need for additional capacity to be built outside countries of concern.

#### Anticipated Transfers of Funds

Participants in the incentives program that violate the prohibitions face the potential "clawback" of Federal funding. For purposes of this analysis, any recovery of funding resulting from entities engaging in activities prohibited by this proposed regulation is considered to be a transfer of funds of an equal amount of the funding award (plus interest) back to the government. This recovery of funds could have negative implications for the award recipients' financial condition and, for public companies, could affect their stock valuation. The recovery of funds might also affect award recipients' willingness or ability to continue constructing semiconductor facilities and equipment in the United States.

The potential clawback of funds is designed to serve as a significant deterrent to violations. The Department, therefore, expects that few, if any,

funding recipients will violate the prohibitions laid out in this proposed rule. Damage to corporate reputation resulting from violating an agreement with the U.S. government, while not readily quantifiable, would also be a significant deterrent to violations. Thus, the likelihood of violations that result in a recovery of funding is small and the impact of the transfer is expected to be minimal across all incentives program participants. Furthermore, even in the unlikely event that a violation occurs and clawbacks become necessary, the impacted chipmakers are highly unlikely to abandon their finished or ongoing investments in the United States.

Two reasons make this outcome unlikely: First, because of the high fixed costs associated with chip production, companies are likely to either continue producing in facilities that are already built or finish building ongoing investment projects. Second, semiconductor production capacity is only likely to be built with a high degree of confidence of customer demand, usually with advanced purchases of wafer capacity prior to completion of the facility construction. Abandoning a finished or ongoing project could jeopardize customer relationships and ongoing revenue. The incentives associated with CHIPS are expected to incentivize applicants to locate their productive capacity within the United States. Once those decisions are made, and projects are under-way, there would likely be significant costs to reverse such decisions.

#### Anticipated Reporting and Recordkeeping Costs

This proposed rule establishes a notification requirement for funding recipients who are planning certain transactions in foreign countries of concern. This notification requirement applies to recipients pursuing transactions that would: (1) expand existing capacity for manufacture of legacy semiconductors; or (2) provide new capacity for legacy semiconductors that primarily serve the market of the foreign country of concern.

The Department estimates that there are not more than a handful of potential CHIPS Incentives Program applicants with existing facilities in foreign countries of concern that may seek to expand manufacturing capacity under the provisions of this proposed rule, and therefore expects few notifications. However, for purposes of this analysis, the Department has conservatively assumed a maximum of 10 notifications per year. The proposed notifications would require general information about

<sup>7</sup> SEMI, *World Fab Forecast* (2022). These firms refer to those with productive capacity in countries of concern, are headquartered outside of countries of concern.

<sup>8</sup> Gartner, *Semiconductor Revenue Forecast* (January 2023); McKinsey & Company, *The Semiconductor Decade: A Trillion-Dollar Industry* (April 2022), available at <https://www.mckinsey.com/industries/semiconductors/our-insights/the-semiconductor-decade-a-trillion-dollar-industry>.

planned transaction, such as the names, location and ownership of the parties involved; information about the manufacturing facility such as current and proposed semiconductor production technology to determine if it meets the “legacy” requirement; current and proposed manufacturing capacity to determine if the “existing facility” definition is met; and information about the markets or end users for the semiconductors to be manufactured in the case of new capacity. Because the funding recipients would have initiated and planned these transactions, the basic information required in the notification would be known and readily available, and the notification process itself is not expected to be burdensome. The Department estimates that it would take recipients two hours to provide each notification, or a total of 20 hours per year for all recipients.

#### Anticipated Administrative (Government) Costs

Once received, notifications would be evaluated by the Department as to whether the transactions meet one of the permissible criteria. This analysis will be performed by Department staff, including an anticipated initial review and, if necessary, consultation with industry and technology experts, as well as with the funding recipient. As the number of notifications that will be submitted each year is expected to be small, the staffing requirements for review and analysis of the notifications is also expected to be small. Assuming conservatively 10 notifications per year, two senior analysts and two licensing officers/electronics engineers could handle notifications with a fraction of their annual time. The total estimated cost would be approximately \$110,000 per year (10 notifications \* 4 staff at a GS-14 salary (\$137/hr)<sup>9</sup> \* 20 hours each to review for each notification).

The Federal Government may also incur costs for monitoring and enforcement efforts. Because the program is designed to deter violations, we expect that enforcement actions will rarely be needed. In those cases where the Federal Government will ultimately need to take enforcement action, the government will incur additional costs; however, the extent of those costs is currently unknown. Moreover, investments in semiconductor manufacturing are widely monitored

and reported in the trade press. New or expanded semiconductor manufacturing capacity requires installation of expensive capital equipment and several years to bring into operation. It is unlikely that such expansions would go unnoticed. Therefore, to the extent that monitoring is required, we would expect that the Government would incur limited costs. The Department requests comments from the public on the anticipated monitoring and enforcement costs.

#### Anticipated Benefits

The provisions in this proposed rule reinforce the benefits of the CHIPS Incentives Program by ensuring that funding goes toward increasing domestic manufacturing capacity and by discouraging investments in foreign countries of concern that would raise national security concerns. The domestic investments will advance U.S. economic and national security, enhance global supply chain resilience, and cement U.S. leadership in designing and building important semiconductor technologies. In particular, these investments will help address areas where the United States has fallen behind in semiconductor manufacturing. For example, although the United States remains a global leader in chip design and research and development (R&D), it has fallen behind in manufacturing and today accounts for only roughly 10 percent of commercial global production.<sup>10</sup>

The CHIPS Incentives Program is expected to catalyze long-term economically sustainable growth in the domestic semiconductor industry in support of U.S. economic and national security. The Program is also expected to facilitate private investments in large-scale U.S.-based production and R&D, as well as throughout the supply chain, attracting both existing and new private investors to the U.S. semiconductor ecosystem and encouraging innovative approaches to funding industry growth. These are investments in facilities and equipment in the United States that would not occur otherwise.

The \$39 billion of Federal funding is intended to serve as a catalyst to galvanize private, state, and local investment in the semiconductor industry. It is expected that this funding will lay the groundwork for long-term growth and economic sustainability in the domestic semiconductor industry

and promote the secure and resilient supply chains on which the sector relies. The industry, it is anticipated, will then produce, at scale, leading-edge logic and memory chips critical to the national security and U.S. economic competitiveness. The funding is further expected to support current-generation and mature-node technologies essential for economic and national security. The funding is also expected to lead to development of a robust and skilled workforce and a diverse base of suppliers for semiconductor production. The funding will support research and development that is expected to drive innovation in design, materials, and processes that will accelerate the industries of the future. Further, it is anticipated that the funding will support the broader U.S. economy, creating good jobs accessible to all, and supporting and growing local economies and communities.

#### Regulatory Alternatives

There is little flexibility for regulatory alternatives regarding the provisions implemented by this proposed regulation. The CHIPS Act clearly spells out the framework for administering the prohibitions on expansions of semiconductor manufacturing capacity in foreign countries of concern. The statute details the types of transactions that are not prohibited (*i.e.*, certain types of transactions involving legacy semiconductors), and lays out a notification requirement, a timeline for review, and the potential for mitigation. The statute also requires imposing the joint research and technology licensing prohibition.

The Act does allow for certain flexibility to determine which transactions qualify as “significant”, what is meant by “material expansion” of “semiconductor manufacturing capacity”, and what constitutes a “legacy semiconductor”. For example, the proposed definition of “significant transaction” includes a minimum threshold of \$100,000, such that transactions involving lower monetary values would not be prohibited. Likewise, the proposed definition of “material expansion” refers to increases in capacity of at least 5 percent to identify expansions that would be prohibited. The proposed definition of “predominately serves the market” would allow for expansions where at least 85% of a facility’s output by value serves a foreign market. The way in which these terms, and others, are defined thus will have an impact on which transactions may be permissible, which, in turn, could affect investment choices of funding recipients. The

<sup>9</sup> This value takes the 2022 hourly wage rate \$68.55 for GS-14 step 5 employees in the Washington, DC region and multiplies by two to account for overhead and benefits. Wage information is available at <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2022/DCB.pdf>.

<sup>10</sup> The White House, “Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth: 100-Day Reviews under Executive Order 14017,” June 2021, 9, <https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf>.

Department seeks comment on these proposed definitions and how the interpretation of terms in this proposed rule would impact industry members, including, in particular, those with existing facilities in a foreign country of concern.

#### Conclusion

This proposed rule, which implements the CHIPS Act's provisions for recovery of funding for violating the prohibitions on certain expansion of semiconductor manufacturing and certain joint research or technology licensing is expected to provide significant deterrence against potential violations and to reinforce CHIPS Act objectives to incentivize investment in semiconductor facilities and equipment in the United States. Together with the Act's infusion of funding into semiconductor manufacturing, the proposed rule is expected to provide substantial national security and economic benefits. As a result, the overall benefits of this proposed rule are expected to significantly outweigh any negative impact from the prohibitions on expansions of capacity in foreign countries of concern. The Department requests comments on any aspect of this impact assessment.

#### Administrative Procedure Act

Pursuant to 5 U.S.C. 553(a)(2), the provisions of the Administrative Procedure Act requiring notice of proposed rulemaking and the opportunity for public participation are inapplicable to this proposed rule because this rule, which places certain limitations on funding recipients, relates to "public property, loans, grants, benefits, or contracts."<sup>11</sup> However, because the Department is interested in receiving public input to help inform the actions within this rulemaking, this proposed rule includes a 60-day period for public comment.

The CHIPS Program Office seeks broad input from all interested stakeholders on this proposed rule, including information on limitations and procedures for funding recipients to notify the Secretary of any planned significant transactions that may be prohibited. Specifically, the CHIPS Program Office requests information regarding the definitions of "significant transaction," "material expansion," "semiconductor manufacturing," "legacy semiconductors," "predominately serves the market," "a

technology or product that raises national security concerns," and "existing facilities." Commenters are encouraged to address any of the specific definitions, any other parts of this proposed rule, or the proposed rule more generally. To properly submit comments on this rule, please follow the submission instructions in the **ADDRESSES** section above.

#### Regulatory Flexibility Act

The Chief Counsel for Regulation has certified to the Chief Counsel for Advocacy of the Small Business Administration under the provisions of the Regulatory Flexibility Act, 5 U.S.C. 605(b), that the proposed rule if adopted, would not have a significant economic impact on a substantial number of small entities as that term is defined in the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.* (RFA). A summary of the factual basis for this certification is below.

The first prohibition in this proposed rule (described in the Expansion Clawback section of the Act) applies to significant transactions involving the material expansion of semiconductor manufacturing capacity in foreign countries of concern (15 U.S.C. 4652(a)(6)(C)(i)). There are two industry sectors identified by their classification under the North American Industry Classification System (NAICS) that are potentially impacted: Semiconductor and related device manufacturing (NAICS 334413) and semiconductor machinery manufacturing (NAICS 333242). According to the most recent data from the Bureau of the Census (*2019 SUSB Annual Data Tables by Establishment Industry*, U.S. Census Bureau, February 2022), in 2019 there were a total of 723 establishments in the United States involved in "semiconductor and related device manufacturing" (NAICS 333413). Note that this industry category includes an unknown number of manufacturers of "related devices" such as solar cells, fuel cells and light emitting diodes that are not impacted by the prohibitions in this proposed rule. It is likely that many of the small entities in this NAICS fall into this "related devices" category, as semiconductor device manufacturing is a highly complex, highly capital-intensive industry beyond the technical and financial capability of most small businesses.

Of these 723 firms in the semiconductor and related devices NAICS segment, 655 (90 percent) were small businesses with fewer than 500 employees; over a third (251) had five or fewer employees. There were 68 establishments with 500 or more

employees. Total employment in the sector was 97,617, of which larger establishments with 500 or more employees accounted for over 80 percent. The total number of establishments in 2019 involved in manufacturing the machinery that is used to make semiconductors (NAICS 333242) was 150, of which 125 had 500 or fewer employees.

While small entities may qualify for and receive incentive awards under the program (either individually or as part of a group), they are not likely to engage in the types of transactions that are addressed in this proposed rule. Specifically, they will not likely engage in any significant transaction involving the material expansion of semiconductor manufacturing capacity in foreign countries of concern (15 U.S.C. 4652(a)(6)(C)(i)). Of the entities chosen to receive CHIPS Incentives Program awards, the expansion prohibition only applies to those that either plan to expand an existing semiconductor manufacturing facility in a foreign country of concern or plan to establish such a facility in a country of concern. Technology upgrades of existing facilities (that do not expand semiconductor manufacturing capacity) are not affected, and there is an exception for semiconductor manufacturing capacity expansions of existing facilities involving manufacture of legacy semiconductors. To the extent that there are semiconductor manufacturers participating in the CHIPS program that are small businesses, they would likely fall into this "legacy semiconductor" category. Leading-edge semiconductor manufacturing targeted by this prohibition (because of its importance to national security) is an exceedingly complex and capital-intensive industry that is dominated by large multinational firms.

The second prohibition codified in this proposed rule (described in the Technology Clawback section of the Act) prevents award recipients from entering into joint research or technology licensing efforts with foreign entities of concern that relate to a technology or product that raises national security concerns (15 U.S.C. 4652(a)(5)(C)). This prohibition has been largely harmonized with existing oversight and restrictions on these types of transactions imposed by the Export Administration Regulations (15 CFR parts 730 through 744). Therefore, the (additional) economic impact of this prohibition will be negligible for both large and small entities.

Based on the above, the Department does not anticipate that this proposed

<sup>11</sup> In addition, the provisions of this rule implementing the Expansion Clawback provisions of the Act are exempt from the rulemaking provisions of the Administrative Procedure Act pursuant to 15 U.S.C. 4652(a)(6)(A)(iii).



rule will have a significant economic impact on a substantial number of small entities as that term is defined in the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.* As a result, an initial regulatory flexibility analysis is not required, and none has been prepared.

#### *Paperwork Reduction Act*

This proposed rule contains a new collection-of-information requirement subject to review and approval by OMB under the Paperwork Reduction Act. This rule creates new requirements by establishing a notification requirement for funding recipients that plan to engage in any significant transaction involving the material expansion of semiconductor manufacturing capacity in a foreign country of concern that may be permitted if certain conditions are met. Public reporting burden for this notification is estimated to average 20 hours (10 respondents \* 2 hours per response), including the time for reviewing instructions, searching existing data sources, gathering the data needed, and completing and reviewing the collection of information. The total estimated cost is \$110,000 (10 notifications \* 4 staff @ GS-14 salary (\$137/hr) \* 20 hours each to review for each notification). The \$137 per hour cost estimate for this information collection is consistent with the GS-scale salary data for a GS-14 step 5. The information requested in these notifications is related to business transactions that are being proposed or planned by funding recipients. Since it is the funding recipients themselves that are initiating these transactions, the information requested on them will be known to them and readily available.

We are soliciting comments from the public (as well as affected agencies) concerning our information collection and recordkeeping requirements. These comments will help us:

(1) Evaluate whether the information collection is necessary for the proper performance of our agency's functions, including whether the information will have practical utility.

(2) Evaluate the accuracy of our estimate of the burden of the information collection, including the validity of the methodology and assumptions used.

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the information collection on those who are to respond (such as through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of

information technology, *e.g.*, permitting electronic submission of responses).

Comments on these or any other aspects of the collection of information can be submitted via [www.regulations.gov](http://www.regulations.gov).

#### List of Subjects in 15 CFR Part 231

Business and industry, Computer technology, Exports, Foreign trade, Government contracts, Grant programs, Investments (U.S. investments abroad), National defense, Research, Science and technology, Semiconductor chip products.

■ For the reasons stated in the preamble, and under the authority of 15 U.S.C. 4651, *et seq.*, the National Institute of Standards and Technology proposes to revise 15 CFR chapter II, subchapter C, to read as follows:

#### Subchapter C—CHIPS Program

### PART 231—CLAWBACKS OF CHIPS FUNDING

Sec.

#### Subpart A—Definitions

- 231.101 Affiliate.
- 231.102 Applicable term.
- 231.103 Existing facility.
- 231.104 Foreign country of concern.
- 231.105 Foreign entity.
- 231.106 Foreign entity of concern.
- 231.107 Funding recipient.
- 231.108 Joint research.
- 231.109 Knowingly.
- 231.110 Legacy semiconductor.
- 231.111 Material expansion.
- 231.112 Owned by, controlled by, or subject to the jurisdiction or direction of.
- 231.113 Person.
- 231.114 Predominately serves the market.
- 231.115 Required agreement.
- 231.116 Secretary.
- 231.117 Semiconductor.
- 231.118 Semiconductor manufacturing.
- 231.119 Semiconductor manufacturing capacity.
- 231.120 Semiconductors critical to national security.
- 231.121 Significant transaction.
- 231.122 Significant renovations.
- 231.123 Technology licensing.
- 231.124 Technology or product that raises national security concerns.

#### Subpart B—General

- 231.201 Scope.
- 231.202 Prohibition on certain expansion transactions.
- 231.203 Prohibition on certain joint research or technology licensing.
- 231.204 Retention of records.

#### Subpart C—Notification, Review, and Recovery

- 231.301 Procedures for notifying the Secretary of transactions.
- 231.302 Contents of notifications; certifications.
- 231.303 Response to notifications.

- 231.304 Initiation of review.
- 231.305 Procedures for review.
- 231.306 Mitigation of national security risks.
- 231.307 Review of actions that may violate the prohibition on certain joint research or technology licensing.
- 231.308 Recovery and other remedies.

#### Subpart D—Other Provisions

- 231.401 Amendment.
- 231.402 Submission of false information.

Authority: 15 U.S.C. 4651, *et seq.*

### PART 231—CLAWBACKS OF CHIPS FUNDING

#### Subpart A—Definitions

##### § 231.101 Affiliate

*Affiliate* means:

- (a) Any subsidiary of the funding recipient, *i.e.*, any entity in which the funding recipient directly or indirectly holds at least 50 percent of the outstanding voting interest;
- (b) Any parent entity of the funding recipient, *i.e.*, any entity that directly or indirectly holds at least 50 percent of the outstanding voting interest in the funding recipient; or
- (c) Any entity in which the funding recipient's parent entity or parent entities directly or indirectly hold at least 50 percent of the outstanding voting interest.

##### § 231.102 Applicable term.

For both the prohibition on certain expansion transactions and the prohibition on certain joint research or licensing transactions, the applicable term shall be the 10 years following the date of the award of Federal financial assistance, unless otherwise specified in the required agreement.

##### § 231.103 Existing facility.

*Existing facility* means any facility built, equipped, and operating at the semiconductor manufacturing capacity level for which it was designed prior to entering into the required agreement. Existing facilities must be documented in the required agreement. Existing facilities shall be defined by their semiconductor manufacturing capacity at the time of the required agreement; a facility that undergoes significant renovations after the required agreement is entered into shall no longer qualify as an "existing facility."

##### § 231.104 Foreign country of concern.

The term *foreign country of concern* means:

- (a) A country that is a covered nation (as defined in 10 U.S.C. 4872(d)); and
- (b) Any country that the Secretary, in consultation with the Secretary of Defense, the Secretary of State, and the



Director of National Intelligence, determines to be engaged in conduct that is detrimental to the national security or foreign policy of the United States.

#### § 231.105 Foreign entity.

*Foreign entity*, as used in this part:

(a) Means—

(1) A government of a foreign country or a foreign political party;

(2) A natural person who is not a lawful permanent resident of the United States, citizen of the United States, or any other protected individual (as such term is defined in 18 U.S.C.

1324b(a)(3)); or

(3) A partnership, association, corporation, organization, or other combination of persons organized under the laws of or having its principal place of business in a foreign country; and

(b) Includes—

(1) Any person owned by, controlled by, or subject to the jurisdiction or direction of an entity listed in paragraph (a) of this section;

(2) Any person, wherever located, who acts as an agent, representative, or employee of an entity listed in paragraph (a) of this section;

(3) Any person who acts in any other capacity at the order, request, or under the direction or control of an entity listed in paragraph (a) of this section, or of a person whose activities are directly or indirectly supervised, directed, controlled, financed, or subsidized in whole or in majority part by an entity listed in paragraph (a) of this section;

(4) Any person who directly or indirectly through any contract, arrangement, understanding, relationship, or otherwise, owns 25 percent or more of the equity interests of an entity listed in paragraph (a) of this section;

(5) Any person with significant responsibility to control, manage, or direct an entity listed in paragraph (a) of this section;

(6) Any person, wherever located, who is a citizen or resident of a country controlled by an entity listed in paragraph (a) of this section; or

(7) Any corporation, partnership, association, or other organization organized under the laws of a country controlled by an entity listed in paragraph (a) of this section.

#### § 231.106 Foreign entity of concern.

*Foreign entity of concern* means any foreign entity that is—

(a) Designated as a foreign terrorist organization by the Secretary of State under 8 U.S.C. 1189;

(b) Included on the Department of Treasury's list of Specially Designated

Nationals and Blocked Persons (SDN List), or for which one or more individuals or entities included on the SDN list, individually or in the aggregate, directly or indirectly, hold at least 50 percent of the outstanding voting interest;

(c) Owned by, controlled by, or subject to the jurisdiction or direction of a government of a foreign country that is a covered nation (as defined in 10 U.S.C. 4872(d));

(d) Alleged by the Attorney General to have been involved in activities for which a conviction was obtained under—

(1) The Espionage Act, 18 U.S.C. 792 *et seq.*;

(2) 18 U.S.C. 951;

(3) The Economic Espionage Act of 1996, 18 U.S.C. 1831 *et seq.*;

(4) The Arms Export Control Act, 22 U.S.C. 2751 *et seq.*;

(5) The Atomic Energy Act, 42 U.S.C. 2274, 2275, 2276, 2277, or 2284;

(6) The Export Control Reform Act of 2018, 50 U.S.C. 4801 *et seq.*;

(7) The International Economic Emergency Powers Act, 50 U.S.C. 1701 *et seq.*; or

(8) 18 U.S.C. 1030.

(b) Included on the Bureau of Industry and Security's Entity List (15 CFR part 744, supplement no. 4);

(c) Included on the Department of the Treasury's list of Non-SDN Chinese Military-Industrial Complex Companies (NS-CMIC List), or for which one or more individuals or entities included on the NS-CMIC list, individually or in the aggregate, directly or indirectly, hold at least 50 percent of the outstanding voting interest;

(d) Identified in the Federal Communications Commission's list of Equipment and Services Covered By section 2(a) of the Secure and Trusted Communications Networks Act of 2019 as providing covered equipment or services; or

(e) Determined by the Secretary, in consultation with the Secretary of Defense and the Director of National Intelligence, to be engaged in unauthorized conduct that is detrimental to the national security or foreign policy of the United States under this chapter.

#### § 231.107 Funding recipient.

*Funding recipient* means any entity receiving a Federal financial assistance award under 15 U.S.C. 4652 that enters into a required agreement.

#### § 231.108 Joint research.

*Joint research* means any research and development activity as defined at 15 U.S.C. 638(e)(5) that is jointly

undertaken by two or more persons, including any research and development activities undertaken as part of a joint venture, as defined at 15 U.S.C. 4301(a)(6).

#### § 231.109 Knowingly.

*Knowingly* means acting with knowledge that a circumstance exists or is substantially certain to occur, or with an awareness of a high probability of its existence or future occurrence. Such awareness can be inferred from evidence of the conscious disregard of facts known to a person or of a person's willful avoidance of facts.

#### § 231.110 Legacy semiconductor.

(a) *Legacy semiconductor* means:

(1) A digital or analog logic semiconductor that is of the 28-nanometer generation or older (*i.e.*, has a gate length of 28 nanometers or more for a planar transistor);

(2) A memory semiconductor with a half-pitch greater than 18 nanometers for Dynamic Random Access Memory (DRAM) or less than 128 layers for Not AND (NAND) flash that does not utilize emerging memory technologies, such as transition metal oxides, phase-change memory, perovskites, or ferromagnetics relevant to advanced memory fabrication; or

(3) A semiconductor identified by the Secretary in a public notice issued under 15 U.S.C. 4652(a)(6)(A)(ii).

(b) Notwithstanding paragraph (a) of this section, the following are not legacy semiconductors:

(1) Semiconductors critical to national security, as defined in § 231.120;

(2) A semiconductor with a post-planar transistor architecture (such as fin-shaped field effect transistor (FinFET) or gate all around field-effect transistor); and

(3) For the purposes of packaging facilities, semiconductors packaged utilizing three-dimensional (3D) integration.

#### § 231.111 Material expansion.

*Material expansion* means the addition of physical space or equipment that has the purpose or effect of increasing semiconductor manufacturing capacity of a facility by more than five percent or a series of such expansions which, in the aggregate during the applicable term of a required agreement, increase the semiconductor manufacturing capacity of a facility by more than five percent of the existing capacity when the required agreement was entered into.

**§ 231.112 Owned by, controlled by, or subject to the jurisdiction or direction of.**

(a) A person is owned by, controlled by, or subject to the jurisdiction or direction of an entity where at least 25 percent of the person's outstanding voting interest is held directly or indirectly by that entity.

(b) A person is owned by, controlled by, or subject to the jurisdiction or direction of a government of a foreign country or of a foreign political party where:

(1) The person is a citizen, national, or resident of the foreign country located in the foreign country;

(2) The person is organized under the laws of or has its principal place of business in the foreign country; or

(3) At least 25 percent of the person's outstanding voting interest is held directly or indirectly by the government of a foreign country or a foreign political party.

**§ 231.113 Person.**

The term *person* includes an individual, partnership, association, corporation, organization, or any other combination of individuals.

**§ 231.114 Predominately serves the market.**

*Predominately serves the market* means that 85 percent of the output of the semiconductor manufacturing facility (e.g., wafers, semiconductor devices, or packages) by value is incorporated into final products (i.e., not an intermediate product that is used as factor inputs for producing other goods) that are used or consumed in that market.

**§ 231.115 Required agreement.**

*Required agreement* means the agreement required under 15 U.S.C. 4652(a)(6)(C) that is entered into by a funding recipient on or before the date on which the Secretary awards Federal financial assistance under 15 U.S.C. 4652. The required agreement shall include, *inter alia*, provisions describing the prohibitions on certain joint research or technology licensing in § 231.202 and on certain joint research or technology licensing in § 231.203.

**§ 231.116 Secretary.**

*Secretary* means the Secretary of Commerce or the Secretary's designees.

**§ 231.117 Semiconductor.**

*Semiconductor* means 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.

**§ 231.118 Semiconductor manufacturing.**

*Semiconductor manufacturing* means semiconductor fabrication or semiconductor packaging. Semiconductor fabrication includes the process of forming devices like transistors, poly capacitors, non-metal resistors, and diodes, as well as interconnects between such devices, on a wafer of semiconductor material. 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.

**§ 231.119 Semiconductor manufacturing capacity.**

*Semiconductor manufacturing capacity* means the productive capacity of a semiconductor facility. In the case of a semiconductor fabrication facility, semiconductor manufacturing capacity is measured in wafer starts per month. In the case of a packaging facility, semiconductor manufacturing capacity is measured in packages per month.

**§ 231.120 Semiconductors critical to national security.**

*Semiconductors critical to national security* means:

- (a) Compound semiconductors;
- (b) Semiconductor utilizing nanomaterials, including 1D and 2D carbon allotropes such as graphene and carbon nanotubes;
- (c) Wide-bandgap/ultra-wide bandgap semiconductors;
- (d) Radiation-hardened by process (RHBP) semiconductors;
- (e) Fully depleted silicon on insulator (FD–SOI) semiconductors;
- (f) Silicon photonic semiconductors;
- (g) Semiconductors designed for quantum information systems; and
- (h) Semiconductors designed for operation in cryogenic environments (at or below 77 Kelvin).

**§ 231.121 Significant transaction**

*Significant transaction* means:

- (a) Any investment, whether proposed, pending, or completed, that is valued at \$100,000 or more, including:
  - (i) A merger, acquisition, or takeover, including:
    - (i) The acquisition of an ownership interest in an entity;
    - (ii) A consolidation;
    - (iii) The formation of a joint venture;

(iv) 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; or

(2) Any other investment, including any capital expenditures or the formation of a subsidiary; or

(b) A series of transactions described in paragraph (a) of this section, which, in the aggregate during the applicable term of a required agreement, are valued at \$100,000 or more.

**§ 231.122 Significant renovations.**

*Significant renovations* means any set of changes to a facility that, in the aggregate during the applicable term of the required agreement, increase semiconductor manufacturing capacity (as defined in § 231.119) by adding an additional line or otherwise increase semiconductor manufacturing capacity by 10 percent or more.

**§ 231.123 Technology licensing.**

A contractual agreement in which one party's patents, trade secrets, or know-how are sold or made available to another party.

**§ 231.124 Technology or product that raises national security concerns.**

*A technology or product that raises national security concerns* means:

- (a) Any semiconductors critical to national security; or
- (b) Any item listed in Category 3 of the Commerce Control List (supplement no. 1 to part 774 of the Export Administration Regulations, 15 CFR part 774) that is controlled for National Security ("NS") reasons, as described in 15 CFR 742.4, or Regional Stability ("RS") reasons, as described in 15 CFR 742.6

**Subpart B—General****§ 231.201 Scope.**

This subpart sets forth the provisions to be used in the required agreements (defined in § 231.115), the processes for notifying the Secretary of a significant transaction, and the process for review by the Secretary of a transaction or an action that may violate the prohibition on certain joint research or technology licensing.

**§ 231.202 Prohibition on certain expansion transactions.**

(a) During the 10-year period beginning on the date of the award of Federal financial assistance under 15 U.S.C. 4652, the funding recipient and its affiliates may not engage in any significant transaction involving the material expansion of semiconductor

manufacturing capacity in a foreign country of concern. This prohibition does not apply to—

(1) A funding recipient's existing facilities or equipment for manufacturing legacy semiconductors that exist on the date of the award; or

(2) Significant transactions involving material expansion of semiconductor manufacturing capacity that—

(i) Produces legacy semiconductors; and

(ii) Predominately serves the market of a foreign country of concern.

(b) No later than the date of the award of Federal financial assistance award under 15 U.S.C. 4652, the funding recipient shall enter into a required agreement that contains this prohibition and is otherwise consistent with this part.

#### **§ 231.203 Prohibition on certain joint research or technology licensing.**

During the applicable term of a Federal financial assistance award under 15 U.S.C. 4652, neither a funding recipient nor its affiliates may knowingly engage in any joint research or technology licensing with a foreign entity of concern that relates to a technology or product that raises national security concerns.

#### **§ 231.204 Retention of records.**

(a) During the 10-year period beginning on the date of the Federal financial assistance award under 15 U.S.C. 4652 and for a period of seven years following any significant transaction, a funding recipient or its affiliate planning or engaging in any significant transaction shall maintain records related to the significant transaction in a manner consistent with the recordkeeping practices used in their ordinary course of business for such transactions.

(b) Any funding recipient or its affiliate that is notified that a transaction is being reviewed under § 231.305 shall immediately take steps to retain all records relating to such transaction.

### **Subpart C—Notification, Review, and Recovery**

#### **§ 231.301 Procedures for notifying the Secretary of transactions.**

During the term of the required agreement the funding recipient shall submit a notification to the Secretary (notification) regarding any planned significant transactions of the funding recipient or its affiliate involving the material expansion of semiconductor manufacturing capacity in a foreign country of concern, as set forth in § 231.202, including any transaction it

believes to qualify as an exception to the prohibition under 15 U.S.C.

4652(a)(6)(C)(ii). A notification must include the information set forth in § 231.302 and be submitted to [notifications@chips.gov](mailto:notifications@chips.gov).

#### **§ 231.302 Contents of notifications; certifications.**

The funding recipient submitting a notification shall provide the information set out in this section, which must be accurate and complete. The notification shall be certified by the funding recipient's Chief Executive Officer, President, or equivalent, and shall contain the following information about the parties and the transaction:

(a) The funding recipient and any affiliate that is party to the transaction, including for each a primary point of contact, telephone number, and email address.

(b) The identity and location(s) of all other parties to the transaction.

(c) Information, including organizational chart(s), on the ownership structure of parties to the transactions.

(d) A description of any other significant foreign involvement, *e.g.*, through financing, in the transaction.

(e) The name(s) and location(s) of any entity in a foreign country of concern where or at which semiconductor manufacturing capacity may be materially expanded by the transaction.

(f) A description of the transaction, including the specific types of semiconductors currently produced at the facility planned for expansion, the current production technology node (or equivalent information) on production technology in current use and semiconductor manufacturing capacity, as well as the specific types of semiconductors planned for manufacture, the planned production technology node, and planned semiconductor manufacturing capacity.

(g) If the transaction involves the material expansion of semiconductor manufacturing capacity that produces legacy semiconductors which will predominately serve the market of a foreign country of concern, provide documentation as to where the final products incorporating the legacy semiconductors are to be used or consumed, including the percent of semiconductor manufacturing capacity or percent of sales revenue that will be accounted for by use or consumption of the final goods in the foreign country of concern.

(h) If applicable, a statement explaining how the transaction meets the requirements, set forth in 15 U.S.C. 4652(a)(6)(C)(ii), for an exception to the

prohibition on significant transactions that involve the material expansion of semiconductor manufacturing capacity, including details on the calculations for semiconductor manufacturing capacity and/or sales revenue by the market in which the final goods will be consumed.

#### **§ 231.303 Response to notifications.**

After receiving a notification pursuant to § 231.301, the Secretary may:

(a) Reject the notification, and, if so, inform the funding recipient promptly in writing, if:

(1) The notification does not meet the requirements of § 231.302; or

(2) The notification contains apparently false or misleading information; or

(b) Initiate a review under § 231.304, and, if so, inform the funding recipient promptly in writing.

#### **§ 231.304 Initiation of review.**

(a) The Secretary may initiate review of a transaction:

(1) After receiving a notification pursuant to § 231.301; or

(2) Where the Secretary believes that a transaction may be prohibited. Information may be submitted to the Department, including by persons other than a funding recipient, via [notifications@chips.gov](mailto:notifications@chips.gov).

(b) Upon receipt of a notification submitted pursuant to § 231.301, the Secretary will review the notification for completeness and may request additional information from the funding recipient. Once a notification is deemed complete, the Secretary will initiate a review of the transaction, notify the funding recipient in writing following the initiation of review, and consult with the Secretary of Defense and the Director of National Intelligence.

(c) Where the Secretary initiates review of under paragraph (a)(2) of this section, the Secretary will notify the funding recipient in writing following the initiation of review and consult with the Secretary of Defense and the Director of National Intelligence.

#### **§ 231.305 Procedures for review.**

(a) If the Secretary finds that additional information is necessary, the Secretary will ask the funding recipient in writing to supply the supplemental information, and the funding recipient shall promptly provide any supplemental information the Secretary requests. The Secretary will determine whether the supplemental information is complete and notify the funding recipient. The running of the time period for a determination will be suspended from the date on which the request for supplemental information is

sent to the funding recipient until the Secretary receives the supplemental information and finds the notification to be complete.

(b) Not later than 90 days after a notification is deemed complete, or after the Secretary initiates a review under § 231.304(a)(2), the Secretary will provide the funding recipient with an initial determination as to whether the transaction would be a violation of § 231.202. The initial determination may include a determination that the funding recipient or its affiliate has violated § 231.202 by engaging in a prohibited significant transaction.

(c) If the Secretary's initial determination is that the transaction would violate § 231.202 or that the funding recipient or its affiliate has violated § 231.202 by engaging in a prohibited significant transaction, then:

(1) The Secretary will provide the funding recipient with an explanation of the initial determination. The funding recipient may respond within 14 days, including by submitting additional information or requesting that the initial determination be reconsidered.

(2) The Secretary will request tangible evidence from the funding recipient in the form of a signed letter by the funding recipient's Chief Executive Officer, President, or equivalent, certifying that the transaction has been ceased or abandoned. Such a letter must certify, under the penalties provided in the False Statements Accountability Act of 1996, as amended (18 U.S.C. 1001), that the information in the letter is accurate and complete in all material respects.

(3) If the funding recipient requests that the initial determination be reconsidered, the Secretary will provide a final determination. If the funding recipient does not request that the initial determination be reconsidered within 14 days, the initial determination will become a final determination.

(4) Unless the Secretary provides a final determination that the transaction does not violate § 231.202, the funding recipient must cease or abandon the transaction (or, if applicable, ensure that its affiliate ceases or abandons the transaction) and must submit the evidence requested pursuant to paragraph (d)(1) of this section electronically to [notifications@chips.gov](mailto:notifications@chips.gov) within 45 days of the initial determination under paragraph (c) of this section.

(d) Unless recovery is waived pursuant to § 231.306, a violation of § 231.202 for engaging in a prohibited significant transaction or failing to cease or abandon a planned significant transaction that the Secretary has

determined would be in violation of § 231.202 will result in the recovery of the full amount of the Federal financial assistance provided to the funding recipient under 15 U.S.C. 4652, which will be a debt owed to the U.S. Government.

(e) The running of any deadline or time limitation for the Secretary will be suspended during a lapse in appropriations.

#### **§ 231.306 Mitigation of national security risks.**

If the Secretary, in consultation with the Secretary of Defense and the Director of National Intelligence, determines that a funding recipient or its affiliate is planning to undertake or has undertaken a significant transaction that is in violation of § 231.202, the Secretary may seek to take measures in connection with the transaction to mitigate the risk to national security. Such measures may include the negotiation of an agreement with the funding recipient to mitigate the risk to national security in connection with the transaction. The Secretary also may decide to waive the recovery of funds.

#### **§ 231.307 Review of actions that may violate the prohibition on certain joint research or technology licensing.**

(a) The Secretary will notify a funding recipient in writing of any action the Secretary suspects may be a violation of the prohibition on certain joint research or technology licensing in § 231.203 and may request additional information from the funding recipient, which the funding recipient must provide promptly (generally within three business days) to the Secretary.

(b) The Secretary may make an initial determination as to whether the funding recipient or its affiliate violated § 231.203. If the Secretary's initial determination is that the funding recipient or its affiliate has violated § 231.203, the Secretary will provide the funding recipient with that initial determination, an explanation of the initial determination, and an opportunity of 14 days to respond to the initial determination, including by submitting additional information or requesting that the initial determination be reconsidered.

(c) If the funding recipient requests that the initial determination be reconsidered, the Secretary will provide a final determination. If the funding recipient does not request that the initial determination be reconsidered within 14 days, the initial determination will become a final determination.

(d) If the Secretary makes a final determination that an action violated

§ 231.203, the funding recipient will be required to refund the full amount of the Federal financial assistance provided to the funding recipient under 15 U.S.C. 4652 which for all purposes will be a debt owed to the U.S. Government.

#### **§ 231.308 Recovery and other remedies.**

(a) Interest on a debt under § 231.305 or § 231.307 will be calculated from the date on which the Federal financial assistance under 15 U.S.C. 4652 was awarded.

(b) The Secretary may take action to collect a debt under § 231.305 or § 231.307 if such debt is not paid within the time prescribed by the Secretary. In addition or instead, the matter may be referred to the Department of Justice for appropriate action.

(c) If the Secretary makes an initial determination that the funding recipient or its affiliate has violated § 231.202 or § 231.203, the Secretary may suspend Federal financial assistance under 2 CFR 200.339.

(d) The recoveries and remedies available under this section are without prejudice to other available remedies, including civil or criminal penalties.

### **Subpart D—Other Provisions**

#### **§ 231.401 Amendment.**

Not later than August 9, 2024, and not less frequently than once every two years thereafter for the eight-year period after the last award of Federal financial assistance under 15 U.S.C. 4652 is made, the Secretary, after public notice and an opportunity for comment, if applicable and necessary, shall issue a public notice identifying any additional semiconductors included in the meaning of the term “legacy semiconductor” (see § 231.110(a)(3)).

#### **§ 231.402 Submission of false information.**

Section 1001 of title 18 of the United States Code, as amended, shall apply to all information provided to the Secretary under 15 U.S.C. 4652 or under the regulations found in this part.

**Alicia Chambers,**

*NIST Executive Secretariat.*

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