104th Congress, 2d Session – – – – – – – – – – – – House Document 104–249

REQUEST FOR DOD TO MAKE PURCHASES AND PURCHASE COMMITMENTS, AND TO ENTER INTO COST SHARING ARRANGEMENTS UNDER THE DEFENSE PRODUCTION ACT OF 1950

COMMUNICATION

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

NOTIFICATION FOR DOD TO MAKE PURCHASES AND PURCHASE COMMITMENTS, AND TO ENTER INTO COST SHARING ARRANGEMENTS FOR EQUIPMENT TO DEVELOP MANUFACTURING PROCESSES UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED, PURSUANT TO 50 U.S.C. APP. 2093(a)(6)(A)

JULY 22, 1996.—Referred jointly to the Committees on Appropriations and Banking and Financial Services, and ordered to be printed

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THE WHITE HOUSE,
Washington, July 22, 1996.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIR: As required by the Defense Production Act of 1950, as amended, I hereby notify Congress of the intent of the Department of Defense to make purchases and purchase commitments, and to enter into cost-sharing arrangements for equipment to develop manufacturing processes under the Defense Production Act. This budget amendment is consistent with my Administration's emphasis on maintaining national security while increasing America's global competitiveness. No additional budgetary resources are required.

The determinations of the Under Secretary of Defense that these purchases and purchase commitments and cost-sharing arrangements meet the requirements of the Defense Production Act are enclosed.

The details of this action are set forth in the enclosed letter from the Acting Director of the Office of Management and Budget. I concur with his comments and observations.

Sincerely,

WILLIAM J. CLINTON.

Enclosures.

Estimate No. 20
104th Congress, 2nd Session

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

July 22, 1996

The President

The White House

Submitted for your consideration is a request for the Department of Defense to make purchases and purchase commitments, and to enter into cost-sharing arrangements under the Defense Production Act (DPA) of 1950, as amended.

The DPA (50 U.S.C. App. 2093(a)(6)) requires Presidential notification, either in the budget or in an amendment thereto, before the Department of Defense can use existing funds to make purchases and purchase commitments and to enter into cost-sharing arrangements under the DPA. The Department of Defense will use DPA authority to purchase high technology materials from suppliers to stimulate market demand and to share in the cost of equipment necessary to develop manufacturing processes. Use of the DPA authority is consistent with your strong emphasis on maintaining our national security while investing in technologies that will increase America's global competitiveness.

Use of the DPA authority will not increase budget authority. Outlays will be incurred to the extent that actual purchases are made and production equipment is procured.

I have carefully reviewed this proposal and am satisfied that it is necessary at this time. Therefore, I join the Secretary of Defense in recommending that you approve the notification required by the DPA by signing the enclosed letter to the Speaker of the House of Representatives.

Sincerely,

Jacob J. Lew
Acting Director

Enclosure

NOTIFICATION REQUIRED BY THE DEFENSE PRODUCTION ACT

DEPARTMENT OF DEFENSE

Of the funds available from the Defense Production Act Purchases account, $8,000,000 will be available for High Strength, Corrosion Resistant Aluminum Alloy for Sustainment; $10,000,000 will be available for Power Semiconducting Switching Devices; $4,000,000 will be available for Indium Phosphide; $7,000,000 will be available for Silicon on Insulator Wafers; and $3,000,000 will be available for Small Flat Panel Displays.

The Department of Defense will use Defense Production Act (DPA) authority to encourage private companies to work with the Department on the projects described in the attachments to address industrial resource shortfalls. All of these projects meet the criteria specified in the DPA.

Use of the DPA authority will not increase budget authority. Outlays will be incurred to the extent that actual purchases are made or production equipment is procured. As required by the DPA, the Department of Defense will take no action until 60 days have elapsed.

The determinations of the Under Secretary of Defenses that these projects meet the requirements of the DPA are attached.

Attachments

TITLE III PROJECT DETERMINATION
HIGH STRENGTH, CORROSION RESISTANT
ALUMINUM ALLOY FOR SUSTAINMENT

In accordance with section 303(a)(5) of the Defense Production Act, 50 U.S.C. 2093(a)(5), which authority was delegated to the Secretary of Defense by Executive Order 12919, and further delegated to me by Secretary of Defense memorandum, subject: Delegation of Authorities and Assignment of Duties of the Secretary of Defense Under Executive Order 12919, National Defense Industrial Resources Preparedness, Implementing the Defense Production Act (DPA), dated September 28, 1994, I hereby determine that:

1. ***The industrial resource is essential to the national defense.***

   The operating lifetimes of existing DoD aircraft are being extended far beyond their design life spans. Corrosion, fatigue, and their synergistic effects are adversely impacting flight readiness, safety, and the cost of maintaining these aging systems. Repair cycle replacement of vulnerable aluminum alloy structural components with high strength, corrosion resistant (HSCR) alloy components will increase aircraft fleet readiness, improve flight safety, and significantly reduce life cycle costs.

2. ***Without Presidential action, US industry cannot reasonably be expected to provide the capability for the needed industrial resource in a timely manner.***

   Industry has been unwilling to assume the risk of establishing the production capacity necessary to support defense requirements. Title III will incentivize the establishment of both the needed production capacity and the military's access to this critical technology.

3. ***Purchases, purchase commitments, or other actions are the most cost-effective, expedient, and practical alternative method for meeting the need.***

   No other program can mitigate the risks to industry or offer the incentives industry requires to establish the needed production capacity. The authorities contained in the Defense Production Act were enacted specifically to meet the needs embodied in this project.

4. ***The combination of the U.S. national defense demand and foreseeable non-defense demand for the industrial resource or critical technology items is not less than the output of the domestic industrial capability, including the output to be established through this project.***

Current production capability for HSCR aluminum alloy consists of a single laboratory scale facility. The physical properties of the material are known, documented, and being proven in several DoD flight test programs. The material does not require component redesign and uses existing metal working equipment and processes. The Title III activity will expand production capacity to the point where material costs will be competitive with existing aluminum alloys. The total demand for HSCR aluminum alloy for military and commercial aircraft retrofit and new production is then expected to reach 1.9 million pounds per year by the year 2005. The total domestic demand for HSCR aluminum alloy will continue to exceed the domestic capacity, including that established by this project.

Approved by: Paul G. Kaminski JUN 27 1996

Honorable Paul G. Kaminski
Under Secretary of Defense
(Acquisition & Technology)

TITLE III PROJECT DETERMINATION
POWER SEMICONDUCTOR SWITCHING DEVICES

In accordance with section 303(a)(5) of the Defense Production Act, 50 U.S.C. 2093(a)(5), which authority was delegated to the Secretary of Defense by Executive Order 12919, and further delegated to me by Secretary of Defense memorandum, subject: Delegation of Authorities and Assignment of Duties of the Secretary of Defense Under Executive Order 12919, National Defense Industrial Resources Preparedness, Implementing the Defense Production Act (DPA), dated September 28, 1994, I hereby determine that:

1. ***The industrial resource or critical technology item is essential to the national defense.***

   Semiconductor switching devices (SSDs) are pervasive within defense systems and are used in a wide variety of power control, conversion, and conditioning applications. SSDs replace mechanical electric power switching gear and provide vastly increased performance and reliability. They are essential to the complete spectrum of military systems including: aircraft (B-1, F-16, F-18, Apache), ground combat vehicles (M1, Bradley), surface ships (SC-21), submarines, weapons, and surveillance systems (AEGIS, Ground Based Radar, ASQ13F dipping sonar). The DoD requires an assured and affordable domestic source for these critical technology devices.

2. ***Without Presidential action, U.S. industry cannot reasonably be expected to provide the capability for the needed industrial resource in a timely manner.***

   Industry has been unwilling to assume the total risk of establishing the production capacity necessary to support defense requirements. Title III will incentivize the establishment of the needed capacity and ensure the U.S. military's access to this critical technology.

3. ***Purchases, purchase commitments, or other actions are the most cost-effective, expedient, and practical alternative methods for meeting the need.***

   No other program can mitigate the risks to industry or offer the incentives industry requires to establish the needed production capacity. The authorities contained in the Defense Production Act were enacted specifically to meet the needs embodied in this project.

4. ***The combination of the US national defense demand and foreseeable non-defense demand for the industrial resource or critical technology items is not less than the output of the domestic industrial capability, including the output to be established through this project.***

The production and maintenance of DoD systems uses approximately 2,000,000 devices per year. However, almost 90% of these devices are produced by foreign sources. Domestic production capability is limited to devices of low power levels. There is no U.S. capacity for production of the high power devices required for advanced weapon systems and commercial electric utility power transmission. The U.S. national demand for SSDs will continue to exceed the domestic industrial capacity, including that established by this project.

JUN 27 1996

Approved by: Paul G. Kaminski

Honorable Paul G. Kaminski
Under Secretary of Defense
(Acquisition & Technology)

TITLE III PROJECT DETERMINATION
INDIUM PHOSPHIDE

In accordance with section 303(a)(5) of the Defense Production Act, 50 U.S.C. 2093(a)(5), which authority was delegated to the Secretary of Defense by Executive Order 12919, and further delegated to me by Secretary of Defense memorandum, subject: Delegation of Authorities and Assignment of Duties of the Secretary of Defense Under Executive Order 12919, National Defense Industrial Resources Preparedness, Implementing the Defense Production Act (DPA), dated September 28, 1994, I hereby determine that:

1. ***The industrial resource or critical technology item is essential to the national defense.***

   Indium Phosphide (InP) is an advanced electronic semiconductor substrate material that is critical to advanced defense very high frequency (mm-wave) and high power electronics and optoelectronics applications. Military systems dependent on the use of InP include the BAT, SADARM, MILSTAR, GPS, MILSATCOM, MAFET, GBR, F-22, and F-15. Unlike silicon, InP is highly resistant to radiation and is essential to hardened defense weapon and satellite systems. Critical uses for InP are in the fabrication of heterojunction bipolar transistors (HBTs) and high electron mobility transistors (HEMTs) for analog, digital, and optoelectronic devices.

2. ***Without Presidential action, U.S. industry cannot reasonably be expected to provide the capability for the needed industrial resource in a timely manner.***

   Industry has been unwilling to assume the total risk of establishing the production capacity necessary to support defense requirements. Title III will incentivize the establishment of the needed capacity and ensure the U.S. military's access to this critical technology.

3. ***Purchases, purchase commitments, or other actions are the most cost-effective, expedient, and practical alternative methods for meeting the need.***

   No other program can mitigate the risks to industry or offer the incentives industry requires to establish the needed production capacity. The authorities contained in the Defense Production Act were enacted specifically to meet the needs embodied in this project.

4. ***The combination of the US national defense demand and foreseeable non-defense demand for the industrial resource or critical technology items is not less than the output of the domestic industrial capability, including the output to be established through this project.***

Capabilities developed under this project will not exceed the projected defense and non-defense demand. In 1995 the domestic demand for InP was 40 thousand square inches (Ksi), but domestic sources supplied only 10 Ksi. By the year 2002 domestic demand for InP is forecast to exceed 500 Ksi per year. But, absent Title III incentives, domestic supply will only approach 70 Ksi. Domestic demand will continue to outstrip domestic capacity, even with the expansions created as a result of this project.

Approved by: Paul G. Kaminski JUN 27 1996

Honorable Paul G. Kaminski
Under Secretary of Defense
(Acquisition & Technology)

TITLE III PROJECT DETERMINATION
SILICON ON INSULATOR WAFERS

In accordance with section 303(a)(5) of the Defense Production Act, 50 U.S.C. 2093(a)(5), which authority was delegated to the Secretary of Defense by Executive Order 12919, and further delegated to me by Secretary of Defense memorandum, subject: Delegation of Authorities and Assignment of Duties of the Secretary of Defense Under Executive Order 12919, National Defense Industrial Resources Preparedness, Implementing the Defense Production Act (DPA), dated September 28, 1994, I hereby determine that:

1. ***The industrial resource or critical technology item is essential to the national defense.***

   Silicon on Insulator (SOI) electronic substrates, such as bonded wafers and Separation by Implantation of Oxygen (SIMOX), are critical materials that enable the creation of an entirely new class of military integrated circuit components capable of operating in high voltage, high noise, high temperature, and high radiation environments. SOI technology materials are essential to defense telecommunications systems, such as MILSATCOM, ballistic missiles (Minuteman, Trident) surveillance systems, and inertial navigation systems. They provide a superior technology for sensitive battery powered applications due to reduced power requirements (about 1/3), increased device density (40-50%), and faster device performance (up to 3x) over alternative materials.

2. ***Without Presidential action, U.S. industry cannot reasonably be expected to provide the capability for the needed industrial resource in a timely manner.***

   Industry has been unwilling to assume the total risk of establishing the production capacity necessary to support defense requirements. Title III will incentivize the establishment of the needed capacity and ensure the U.S. military's access to this critical technology.

3. ***Purchases, purchase commitments, or other actions are the most cost-effective, expedient, and practical alternative methods for meeting the need.***

   No other program can mitigate the risks to industry or offer the incentives industry requires to establish the needed production capacity. The authorities contained in the

Defense Production Act were enacted specifically to meet the needs embodied in this project.

4. ***The combination of the US national defense demand and foreseeable non-defense demand for the industrial resource or critical technology items is not less than the output of the domestic industrial capability, including the output to be established through this project.***

Domestic industrial capability, including that developed under this Title III activity, will not exceed the U.S. defense and commercial demand for advanced SOI electronic substrate materials. There is currently one domestic merchant supplier of SOI technology substrates. The forecast defense and non-defense demand is projected to reach 35 Msi per year by the year 2000. Excess capacity will not be established by this Title III activity.

Approved by: Paul G. Kaminski JUN 27 1996

Honorable Paul G. Kaminski
Under Secretary of Defense
(Acquisition & Technology)

TITLE III PROJECT DETERMINATION
SMALL FLAT PANEL DISPLAYS (FPDs)

In accordance with section 303(a)(5) of the Defense Production Act, 50 U.S.C. 2093(a)(5), which authority was delegated to the Secretary of Defense by Executive Order 12919, and further delegated to me by Secretary of Defense memorandum, subject: Delegation of Authorities and Assignment of Duties of the Secretary of Defense Under Executive Order 12919, National Defense Industrial Resources Preparedness, Implementing the Defense Production Act (DPA), dated September 28, 1994, I hereby determine that:

1. ***The industrial resource or critical technology item is essential to the national defense.***

   Small format flat panel displays (FPDs) are essential for effective military operations. Modern warfare requires that situational, mapping, intelligence, and technical data be readily available at the tactical and individual soldier level. The warfighter will be provided with programmable, readable displays that provide sensor integration, high resolution, improved ruggedness and reliability, along with weight and power savings over current display systems. Small format FPDs will be incorporated into systems such as the Thermal Weapon Sight (TWS) for individual weapons, and the Army Aviators' Night Vision Imaging System.

2. ***Without Presidential action, U.S. industry cannot reasonably be expected to provide the capability for the needed industrial resource in a timely manner.***

   Industry has been unwilling to assume the total risk of establishing the production capacity necessary to support defense requirements. Title III will incentivize establishment of needed capacity and ensure the U.S. military's access to this critical technology.

3. ***Purchases, purchase commitments, or other actions are the most cost-effective, expedient, and practical alternative methods for meeting the need.***

   No other program can mitigate the risks to industry or offer the incentives industry requires to establish the needed production capacity. The authorities contained in the Defense Production Act were enacted specifically to meet the needs embodied in this project.

4. ***The combination of the US national defense demand and foreseeable non-defense demand for the industrial resource or critical technology items is not less than the output of the domestic industrial capability, including the output to be established through this project.***

Domestic industrial capability, including that developed under this Title III activity, will not exceed the U.S. defense and commercial demand for advanced small format FPDs. There is currently no significant domestic production capacity for this advanced technology. Defense demand alone for small format FPDs will reach more than 75,000 units per year by FY 2010. Excess production capacity will not be created.

Approved by: Paul G. Kaminski JUN 27 1996

Honorable Paul G. Kaminski
Under Secretary of Defense
(Acquisition & Technology)